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******************************** Please provide a detailed statement of the Include the elected species or structures, utility of the invention. Define any terms	e search topic, and describ keywords, synonyms, acros that may have a special r	**************************************
Inventors (please provide full names):	Jeanne 1	Maruanie) Philippe Souline
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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

RN 168273-06-1 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Rimonabant

CN SR 141716

FS 3D CONCORD

MF C22 H21 C13 N4 O

CI COM

SR CA

LC STN Files: ADISINSIGHT, BIOSIS, CA, CAPLUS, CASREACT, CIN, DRUGNL, DRUGPAT, DRUGUPDATES, PROMT, TOXCENTER, USPATFULL

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

58 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

58 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:150071

REFERENCE 2: 137:119520

REFERENCE 3: 137:103401

REFERENCE 4: 137:98994

REFERENCE 5: 137:20325

REFERENCE 6: 137:580

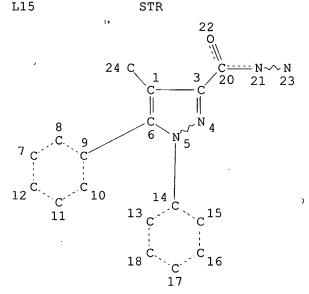
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REFERENCE 9: 136:304109

REFERENCE 10: 136:274665

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NODE ATTRIBUTES:

NSPEC IS RC AT 23 DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L16 103 SEA FILE=REGISTRY SSS FUL L15

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SEARCH TIME: 00.00.01

103 ANSWERS

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           1921 S E2, E3, E4
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           1921 S SANOFI?/PA,CS
                E SYNTHELABO/PA, CS
L5
           2057 S SYNTHELAB?/PA,CS
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                E FR97-870/PA,CS
                E FR97-870/AP, PRN
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              1 S E3, E4
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             58 S L11
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L37
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            146 S (L12 OR L17) (L) (THU OR BAC) / RL
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L63
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L66 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2002 ACS
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AN 1999:38046 HCAPLUS

DN 130:218189

- TI Modulation of CB1 cannabinoid receptor functions after a long-term exposure to agonist or inverse agonist in the Chinese hamster ovary cell expression system
- AU Rinaldi-Carmona, Murielle; Le Duigou, Anne; Oustric, Didier; Barth, Francis; Bouaboula, Monsif; Carayon, Pierre; Casellas, Pierre; Le Fur, Gerard
- CS Sanofi Recherche, Montpellier, 34184, Fr.
- SO Journal of Pharmacology and Experimental Therapeutics (1998), 287(3), 1038-1047
 CODEN: JPETAB; ISSN: 0022-3565
- PB American Society for Pharmacology and Experimental Therapeutics
- DT Journal
- LA English
- AB We have investigated the adaptive changes of the human central cannabinoid receptor (CB1) stably expressed in Chinese hamster ovary cells (CHO-CB1), after agonist (CP 55,940) or selective CB1 inverse agonist (SR 141716) treatment. CB1 receptor d. and affinity const. as measured by binding assays with both tritiated ligands remained essentially unchanged after varying period exposure of CHO-CB1 cells (from 30 min to 72 h) to satg. concns. of CP 55,940 or SR 141716. However, using a C-myc-tagged version of the CB1 receptor, FACS anal. and confocal microscopy studies on CB1 expression indicated that the agonist promoted a disappearance of cell surface receptor although inverse agonist increased its cell surface d. Taken together these results suggest that (1) agonist induces internalization of the receptor into a cellular compartment that would be still accessible to both the hydrophobic ligands CP 55,940 or SR 141716; (2) inverse-agonist promotes externalization of the receptor from an intracellular preexisting pool to the cell surface. In parallel, we also investigated the assocd. effects of CP 55,940 and SR 141716 on CB1 receptor-coupled second messengers. We showed that pre-exposure of cells to CP 55,940 induced a rapid desensitization of the CB1 to the agonist response. The ability of CP 55,940 to inhibit the forskolin-stimulated adenylyl cyclase and to activate the mitogen-activated protein kinase activity was dramatically reduced. By striking contrast, SR 141716 pretreatment of CHO-CB1 cells not only had no significant effect on the potency of CP 55,940 to inhibit the forskolin-stimulated adenylyl cyclase but also induced a significant enhancement of the CP 55,940 ability to stimulate the mitogen-activated protein kinase activity. These results suggest that the modulation of the no. of cell surface receptor could lead to functional desensitization or sensitization of the CB1 receptors.

IT 168273-06-1, SR 141716

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inverse agonist; modulation of CB1 cannabinoid receptor functions after a long-term exposure to agonist or inverse agonist in the Chinese hamster ovary cell expression system)

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L66 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2002 ACS AN 1998:727905 HCAPLUS

- DN 130:90442
- TI Effects of cannabinoids on prolactin and gonadotrophin secretion: involvement of changes in hypothalamic .gamma.-aminobutyric acid (GABA) inputs
- AU De Miguel, Rosario; Romero, Julian; Munoz, Raul M.; Garcia-Gil, Lucia; Gonzalez, Sara; Villanua, Maria A.; Makriyannis, Alexandros; Ramos, Jose A.; Fernandez-Ruiz, J. Javier
- CS DEPARTMENT OF BIOCHEMISTRY, FACULTY OF MEDICINE, COMPLUTENSE UNIVERSITY, MADRID, 28040, Spain
- SO Biochemical Pharmacology (1998), 56(10), 1331-1338 CODEN: BCPCA6; ISSN: 0006-2952
- PB Elsevier Science Inc.
- DT Journal
- LA English
- AB CB1 cannabinoid receptors are located in hypothalamic nuclei and their activation alters several hypothalamic neurotransmitters resulting in, among other things, decreased prolactin (PRL) and LH secretion from the anterior pituitary gland. In the present study, we addressed two related objectives to further explore this complex regulation. First, we examd. whether changes in .gamma.-aminobutyric acid (GABA) and/or dopamine (DA) inputs in the medial basal hypothalamus might occur in parallel to the effects resulting from the activation of CB1 receptors on PRL and gonadotrophin secretion in male rats. Thus, the acute administration of (-)-.DELTA.9-tetrahydrocannabinol (.DELTA.9-THC) produced, as expected, a marked decrease in plasma PRL and LH levels, with no changes in FSH This was paralleled by an increase in the contents of GABA, but levels. not of DA, in the medial basal hypothalamus and, to a lesser extent, in the anterior pituitary gland. The co-administration of .DELTA.9-THC and SR141716, a specific antagonist for CB1 receptors, attenuated both PRL and LH decrease and GABA increase, thus asserting the involvement of the activation of CB1 receptors in these effects. As a second objective, we tested whether the prolonged activation of these receptors might induce tolerance with regard to the decrease in PRL and LH release, and whether this potential tolerance might be related to changes in CB1-receptor binding and/or mRNA expression. The chronic administration of R-methanandamide (AM356), a more stable analog of anandamide, the putative endogenous cannabinoid ligand, prodúced a marked decrease in plasma PRL and LH levels, with no changes in FSH. The decreases were of similar magnitude to those caused by a single injection of this cannabimimetic ligand, thus suggesting the absence of tolerance. In parallel, the anal. of CB1-receptor binding and mRNA expression in several hypothalamic structures proved that the acute or chronic administration of AM356 did not affect either the binding or the synthesis of these receptors. In summary, the activation of CB1 receptors in hypothalamic nuclei produced the expected decrease in PRL and LH secretion, an effect which might be related to an increase in GABAergic activity in the hypothalamus-anterior pituitary axis. The prolonged activation of these receptors for five days did not elicit tolerance in terms of an attenuation in the magnitude of the decrease in PRL and LH, and, accordingly, did not alter CB1-receptor binding and mRNA levels in the hypothalamic nuclei examd.

IT 168273-06-1, SR141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(effects of cannabinoids on prolactin and gonadotrophin secretion and involvement of changes in hypothalamic GABA inputs)

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L66 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2002 ACS
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ΑN
DN
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     3-pyrazolecarboxamide derivatives, its salts and their solvates
IN
     Abramovici, Bernard; Condamine, Christian; Gromenil, Jean-Claude
PΑ
     SANOFI, Fr.
     PCT Int. Appl., 27 pp.
SO
     CODEN: PIXXD2
DT
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                                                             19980327 <--
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UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

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RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
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             GA, GN, ML, MR, NE, SN, TD, TG
     FR 2761266
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     FR 2761266
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     ZA 9802609
                        Α
                             19980930
                                             ZA 1998-2609
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     AU 9870527
                        A1
                             19981022
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     AU 740486
                        B2
                             20011108
     EP 969832
                       A1
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                                             EP 1998-917259
                                                               19980327 <--
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             IE, SI, LT, LV, FI
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                                                               19980327 <--
PRAI FR 1997-3835
                       Α
                             19970328
                                       <--
     WO 1998-FR631
                       W
                             19980327
     Pharmaceutical compns. for oral administration contain 0.5 % to 20 % of
AB
     N-piperidino-5- (4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-
     carboxamide (I) in microcryst. form and pharmaceutical vehicles. The
     compns. are formulated by wet granulation. A pharmaceutical capsule
     contained I 1 mg, starch 51, lactose monohydrate 103.33, povidone K30 4.3,
     CM-cellulose sodium 8.5, sodium lauryl sulfate 0.17, and magnesium
     stearate 1.7 mg.
IT
     168273-06-1
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compn. for oral administration of
        piperidinopyrazolecarboxamide derivs., its salts and their solvates)
     ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2002 ACS
L66
AN
     1998:682118 HCAPLUS
DN
     129:293902
ΤI
     Pharmaceutical composition for oral administration of a N-piperidino-
     3-pyrazolecarboxamide derivative, its salts and their solvates
IN
     Gautier, Jean-Claude; Marrier, Jean-Marie
PA
     SANOFI, Fr.
     PCT Int. Appl., 17 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
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                             DATE
                                             APPLICATION NO.
                                                              DATE
                             19981008
                                             WO 1998-FR630
PΙ
     WO 9843635
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             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
                     KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
         RW: GH, GM,
                     GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             FR, GB,
             GA, GN,
                     ML, MR, NE, SN, TD, TG
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                             19990702
                        B1
     AU 9870526
                        A1
                             19981022
                                             AU 1998-70526
                                                               19980327 <--
PRAI FR 1997-3834
                             19970328
                                       <--
     WO 1998-FR630
                             19980327
     Pharmaceutical compns. contg. 0.5 % to 8 % of N-piperidino-5-
AB
     (4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide (I)
     and 1.5 % to 5 % of Poloxamer F127, formulated in a macrogoglyceride. A
     capsule contained I 10, Gelucire 44-14 235, and Poloxamer F127 5 mg.
ΙT
     168273-06-1
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
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kim - 10 / 044531

(pharmaceutical compn. for oral administration of piperidinopyrazolecarboxamide derivs.)

L66 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:635123 HCAPLUS

DN 129:339820

- TI Cannabinoid receptor agonists protect cultured rat hippocampal neurons from excitotoxicity
- AU Shen, Maoxing; Thayer, Stanley A.
- CS Department of Pharmacology, University of Minnesota Medical School, Minneapolis, MN, 55455, USA
- SO Molecular Pharmacology (1998), 54(3), 459-462 CODEN: MOPMA3; ISSN: 0026-895X
- PB Williams & Wilkins
- DT Journal
- LA English
- AΒ Cannabinoid receptor agonists act presynaptically to inhibit the release of glutamate. Because other drugs with this action are known to reduce excitotoxicity, the authors tested several cannabimimetics in a model of synaptically mediated neuronal death. Redn. of the extracellular Mg2+ concn. to 0.1 mM evoked a repetitive pattern of intracellular Ca2+ concn. ([Ca2+]i) spiking that, when maintained for 24 h, resulted in significant neuronal death. The [Ca2+]i spiking and cell death in this model result from excessive activation of N-methyl-D-aspartate receptors, as indicated by the inhibition of both [Ca2+]i spiking and neuronal death by the N-methyl-D-aspartate receptor antagonist CGS19755 (10 .mu.M). cannabimimetic drug Win55212-2 (100 nM) completely blocked [Ca2+]i spiking and prevented neuronal death induced by low extracellular Mg2+ concns. These effects on [Ca2+]i spiking and viability were stereoselective and were prevented by the CB1 receptor antagonist SR141716 (100 nM). The partial agonist CP55940 (100 nM) also afforded significant protection from excitotoxicity. Cannabimimetic drugs did not protect cells from the direct application of glutamate (30 .mu.M). These data suggest that cannabimimetic drugs may slow the progression of neurodegenerative diseases.
- IT 168273-06-1, SR141716
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cannabinoid receptor agonists protect cultured rat hippocampal neurons from excitotoxicity)

- L66 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2002 ACS
- AN 1998:623584 HCAPLUS
- DN 129:298324
- TI .DELTA.9-Tetrahydrocannabinol induces apoptosis in C6 glioma cells
- AU Sanchez, Cristina; Galve-Roperh, Ismael; Canova, Cecile; Brachet, Philippe; Guzman, Manuel
- CS School of Biology, Department of Biochemistry and Molecular Biology I, Complutense University, Madrid, 28040, Spain
- SO FEBS Letters (1998), 436(1), 6-10 CODEN: FEBLAL; ISSN: 0014-5793
- PB Elsevier Science B.V.
- DT Journal
- LA English
- AB .DELTA.9-Tetrahydrocannabinol (THC), the major active component of marijuana, induced apoptosis in C6.9 glioma cells, as detd. by DNA fragmentation and loss of plasma membrane asymmetry. THC stimulated sphingomyelin hydrolysis in C6.9 glioma cells. THC and N-acetylsphingosine, a cell-permeable ceramide analog, induced apoptosis in several transformed neural cells but not in primary astrocytes or neurons. Although glioma C6.9 cells expressed the CB1 cannabinoid receptor, neither THC-induced apoptosis nor THC-induced sphingomyelin

Page 10

breakdown were prevented by SR141716, a specific antagonist of that receptor. Results thus show that THC-induced apoptosis in glioma C6.9 cells may rely on a CB1 receptor-independent stimulation of sphingomyelin breakdown.

IT 168273-06-1, SR141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(.DELTA.9-Tetrahydrocannabinol induces apoptosis in C6 glioma cells)

L66 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:608544 HCAPLUS

DN 129:235654

TI Movement of a test substance within a membranous system

IN Melchior, Donald L.; Makriyannis, Alexandros

PA University of Massachusetts, USA; University of Connecticut

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2
DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9837920 A1 19980903 WO 1998-US3823 19980227 <--

W: AU, CA, JP, KR

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE AU 9866704 A1 19980918 AU 1998-66704 19980227 <--

PRAI US 1997-795948 19970228 <--

WO 1998-US3823 19980227

AB A method is disclosed for detg. the rate with which a test mol. assocs. with or accumulates in a membrane, by forming a membranous system that contains lipid mols. in assocn. with a reporter mol., applying the test mol. to the system, and measuring the signal generated by the reporter mol. The tests are performed to det. pharmaceuticals mode of action and whether they can be safely and efficiently delivered to the site of action. An example is given for prepn. of fluorosomes contg. the reporter mol. diphenylhexatriene and phosphatidylcholine as the lipid.

IT 168273-06-1

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(movement of a test substance within a membranous system)

- L66 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2002 ACS
- AN 1998:551124 HCAPLUS
- DN 129:270516
- TI Cannabinoids decrease excitatory synaptic transmission and impair long-term depression in rat cerebellar Purkinje cells
- AU Levenes, Carole; Daniel, Herve; Soubrie, Philippe; Crepel, Francis
- CS Laboratoire de Neurobiologie et Neuropharmacologie du Developpement, Paris, 75005, Fr.
- SO Journal of Physiology (Cambridge, United Kingdom) (1998), 510(3), 867-879
 CODEN: JPHYA7; ISSN: 0022-3751
- PB Cambridge University Press
- DT Journal
- LA English
- AB CB-1 cannabinoid receptors are strongly expressed in the mol. layer of the cerebellar cortex. We analyzed, in patch-clamped Purkinje cells (PCs) in rat cerebellar slices, the effect of the selective CB-1 agonists WIN55,212-2 and CP55,940 and of the selective CB-1 antagonist SR141716-A on excitatory synaptic transmission and synaptic

plasticity. Bath application of both agonists markedly depressed parallel fiber (PF) excitatory postsynaptic currents (EPSC)s. This effect was reversed by SR141716-A. Responses of PCs to ionophoretic application of glutamate were not affected by WIN55,212-2. The coeff. of variation and the paired-pulse facilitation of these PF-mediated EPSCs increased in the presence of WIN55,212-2. WIN55,212-2 decreased the frequency of miniature EPSCs and of asynchronous synaptic events evoked in the presence of Sr in the bath, but did not affect their amplitude. WIN55,212-2 did not change the excitability of PFs. WIN55,212-2 impaired long-term depression induced by pairing protocols in PCs. This effect was antagonized by SR141716-A. The same impairment of LTD was produced by 2-chloroadenosine, a compd. that decreases the probability of release of glutamate at PF-PC synapses. It was demonstrated that cannabinoids inhibit synaptic transmission at PF-PC synapses by decreasing the probability of release of glutamate, and thereby impair LTD. effects might represent a plausible cellular mechanism underlying cerebellar dysfunction caused by cannabinoids. 158681-13-1, SR 141716A

ΙT

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RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); BIOL (Biological study)
        (CB-1 cannabinoid receptor antagonist SR141716-A effect on
        the excitatory synaptic transmission in cerebellar Purkinje cells)
L66 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2002 ACS
     1998:527208 HCAPLUS
AN
     129:144865
DN
ΤI
     Use of central cannabinoid receptor antagonists for regulating appetence
ΙN
     Maruani, Jeanne; Soubrie, Philippe
PΑ
     Sanofi, Fr.
     PCT Int. Appl., 32 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO.
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     WO 9832441
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             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     FR 2758723
                                             FR 1997-870
                       Α1
                             19980731
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     US 2002128302
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PRAI FR 1997-870
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     WO 1998-FR154
                       W
                             19980128
                                       <--
                     A3
     US 1999-341764
                             19990819
OS
     MARPAT 129:144865
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- kim 10 / 044531AB The use of a central cannabinoid receptor antagonist (Markush structure given), on its own or combined with a compd. for regulating metabolic disorders, in particular a .beta.3-adrenergic receptor agonist, for prepg. medicines useful for treating appetence disorders is disclosed. N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3carboxamide (SR 141716) at a dose of 0.3 mg/kg reduced the consumption of sucrose and alc. in guinea pigs. A capsule contained micronized SR 141716 1.00, corn starch 51.00, lactose monohydrate 103.33, polyvidone 4.30, sodium lauryl sulfate 0.17, sodium CM-cellulose 8.50, and magnesium stearate 1.70 mg. ፐጥ 168273-06-1, SR 141716 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (use of central cannabinoid receptor antagonists for regulating appetence) L66 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2002 ACS 1998:489016 HCAPLUS ΑN DN 129:211620 ΤI Appetite suppression and weight loss after the cannabinoid antagonist SR 141716 Colombo, Giancarlo; Agabio, Roberta; Diaz, Giacomo; Lobina, Carla; Reali, ΑU Roberta; Gessa, Gian/Luigi C.N.R. Center for Neuropharmacology, Cagliari, Italy CS Life Sciences (1998), 63(8), PL113-PL117 SO CODEN: LIFSAK; IS N: 0024-3205 Elsevier Science In PB DT Journal LA English The effect of the cannabinoid CB1 receptor antagonist, SR 141716, on food intake and body wt. was assessed in adult, non-obese Wistar rats. The daily administration of SR 141716 (2.5 and 10 mg/kg; i.p.) reduced dose-dependently both food intake and body wt. Tolerance to the anorectic effect developed within 5 days; in contrast, body wt. in SR 141716-treated rats remained markedly below that of vehicle-treated rats throughout the entire treatment period (14 days). The results suggest that brain cannabinoid receptors are involved in the regulation of appetite and body wt. IT168273-06-1, SR 141716 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
- (Biological study); USES (Uses)

(appetite suppression and wt. loss after cannabinoid antagonist SR 141716 in relation to role of brain cannabinoid antagonist in appetite regulation and development of tolerance)

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ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2002 ACS
L66
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1998:319380 HCAPLUS ΑN

DN 129:62852

- TI Evaluation of cannabinoid receptor agonists and antagonists using the quanosine-5'-0-(3-[35S]thio)-triphosphate binding assay in rat cerebellar membranes
- Griffin, Graeme; Atkinson, Peter J.; Showalter, Vincent M.; Martin, Billy ΑU R.; Abood, Mary E.
- Department of Pharmacology and Toxicology, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA, USA
- SO Journal of Pharmacology and Experimental Therapeutics (1998) 285(2), 553-560 CODEN: JPETAB; ISSN: 0022-3565
- PB Williams & Wilkins
- DT Journal
- LA English

AΒ Cannabinoid receptors are members of the superfamily of G protein-coupled receptors. Their activation has previously been shown to stimulate guanosine 5'-0-(3-[35S]thio)-triphosphate ([35S]GTP.gamma.S) binding in a range of brain regions using both membrane prepns. and autoradiog. study evaluates the activities of structurally diverse cannabinoid receptor ligands in the GTP.gamma.S binding assay, comparing the relationship between receptor binding and activation and also examg. efficacy differences between compds. Using rat cerebellar membrane prepns., the effects of GDP concn. on GTP.gamma.S binding and the activities of a range of cannabinoid receptor ligands, including the CB1 selective antagonist SR141716A, were investigated. GDP concn. was found to have differing effects on cannabinoid-stimulated [35S]GTP.gamma.S binding depending on the nature of the agonist used. The stimulation produced by high efficacy compds., such as CP 55,940 and WIN 55212-2, was increased by raising the GDP concn., but that of a low efficacy agonist, (-)-.DELTA.-tetrahydrocannabinol, was decreased. Of the cannabinoid compds. tested, a wide range of potencies (EC50) and levels of maximal stimulation (Emax) were obsd. These ranged from CP 55,244 (Emax of $165,\ 148-183\%$, and an EC50 of $0.47,\ 0.22-0.96$, nM) through (-) -. DELTA.-tetrahydrocannabinol, cannabinol and anandamide, which produced no concn.-dependent stimulation of [35S]GTP.gamma.S binding under the same conditions. SR141716A competitively antagonized all the agonists against which it was tested, providing equil. dissocn. consts. (Kd values) in the sub-nanomolar range (0.06-0.40 nM), implicating a CB1 receptor mediated response. These results provide a more detailed characterization of the cannabinoid-stimulated [35S]GTP.gamma.S binding assay than has previously been reported.

IT 168273-06-1, SR141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (evaluation of cannabinoid receptor agonists and antagonists using the guanosine-5'-O-(3-thio)triphosphate binding assay)

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L66 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2002 ACS
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AN 1998:290653 HCAPLUS

DN 129:64245

- TI Reduction of voluntary ethanol intake in ethanol-preferring sP rats by the cannabinoid antagonist SR-141716
- AU Colombo, Giancarlo; Agabio, Roberta; Fa, Mauro; Guano, Lorenza; Lobina, Carla; Loche, Antonella; Reali, Roberta; Gessa, Gian Luigi
- CS C.N.R. Center Neuropharmacology, University Cagliari, Cagliari, I-09124, Italy
- SO Alcohol and Alcoholism (Oxford) (1998), 33(2), 126-130 CODEN: ALALDD; ISSN: 0735-0414
- PB Oxford University Press
- DT Journal
- LA English
- AB The present study assessed the efficacy of the cannabinoid CB1 receptor antagonist, SR-141716, in reducing voluntary ethanol intake in selectively bred Sardinian alc.-preferring (sP) rats. Ethanol (10%, vol./vol.) and food were available in daily 4 h scheduled access periods; water was present 24 h/day. The acute administration of a 2.5 and a 5 mg/kg dose of SR-141716 selectively reduced ethanol intake, whereas a 10 mg/kg dose of SR-141716 reduced to a similar extent both ethanol and food intake. These results suggest that the cannabinoid CB1 receptor is involved in the mediation of the ethanol-reinforcing effects in sP rats.

IT 168273-06-1, SR-141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (redn. of voluntary ethanol intake in ethanol-preferring sP rats by the cannabinoid antagonist SR-141716)

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ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2002 ACS
L66
AN
     1998:281777 HCAPLUS
DN
     129:76332
ΤI
     SR 141716, a CB1 cannabinoid receptor antagonist,
     selectively reduces sweet food intake in marmoset
ΑU
     Simiand, J.; Keane, M.; Keane, P. E.; Soubrie, P.
CS
     Sanofi Recherche, Toulouse, 31/036, Fr.
SO
     Behavioural Pharmacology (1998), 9(2), 179-181
     CODEN: BPHAEL; ISSN: 0955-88 0
PB
     Rapid Science Ltd.
DT
     Journal
LA
     English
     SR 141716 (1 and 3 mg/kg p.\dot{o}.), a selective central
AB
     (CB1) cannabinoid receptor antagonist, selectively reduced feeding of a
     very highly palatable cane-sugar mixt. in marmosets. In contrast, std.
     primate pellet intake was not modified at the lower dose, but was slightly
     increased (+29%; p < 0.01) by the higher dose of SR
     141716. These results are in agreement with the hypothesis that
     endogenous cannabinoid systems are involved in the modulation of the
     appetitive value of food.
ΙT
     168273-06-1, SR 141716
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); BIOL (Biological study)
        (SR 141716, a CB1 cannabinoid receptor antagonist,
        selectively reduces sweet food intake in marmoset)
    ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2002 ACS
L66
ΑN
     1998:200760 HCAPLUS
DN
     128:316761
ΤI
     Cannabinoid receptor agonists and antagonists
ΑU
     Barth, Francis
     Sanofi Recherche, Montpellier, 34184,
CS
SO
     Expert Opinion on Therapeutic Patents
                                            (1998), 8(3), 301-313
     CODEN: EOTPEG; ISSN: 1354-3776
PB
     Ashley Publications
DT
     Journal; General Review
LA
     English
AB
     A review, with 111 refs. Following the discovery of two distinct
     cannabinoid receptors (CB1 and CB2) in the early 1990s, the medicinal
     chem. of cannabinoids has seen renewed interest. In the last decade, at
     least three entirely new chem. series were shown to bind to cannabinoid
     receptors: the aminoalkylindoles developed by Sterling (WIN 55212-2
     analogs), the fatty acid derivs. derived from the endogenous ligand
     anandamide, and Sanofi's diaryl pyrazoles. Moreover, other compds., such
     as benzofurans (Lilly) or substituted arom. amide derivs. (Japan Tobacco)
     that also bind to cannabinoid receptor have recently been disclosed in the
     patent literature. In terms of pharmacol. profile, the major advances of
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for research in coming years.

- L66 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2002 ACS
- AN 1998:46949 HCAPLUS
- DN 128:149875
- TI Cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in the human and guinea-pig hippocampus. [Erratum to document cited in CA128:10525]

the last five years are the emergence of selective CB2 agonists (Merck, Sanofi) with potential applications as immunomodulants and the development

followed recently by the first CB2 antagonist SR 144528. Turning these newly discovered pharmacol. tools into useful drugs remains the challenge

AU Schlicker, E.; Timm, J.; Zentner, J.; Gothert, M.

of the first selective CB1 antagonist SR 141716,

CS Institut fur Pharmakologie und Toxikologie, Universitat Bonn, Bonn, D-53113, Germany

Naunyn-Schmiedeberg's Archives of Pharmacology (1/998), 357(2), SO 190 CODEN: NSAPCC; ISSN: 0028-1298

PΒ Springer-Verlag

DT Journal

LA English

AΒ Due to unfortunate errors, the concns. of Ca2+ and K+ in the 9th and 10th line of the Abstr. and the concn. of Ca2+ in the 17th line of the right column on p.584 are incorrect. It should have read "mM" instead of ".mu.M".

168273-06-1, SR 141716 IT

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in human and guinea pig brain (Erratum))

ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2002 ACS L66

1997:693969 HCAPLUS AN

DN 128:10525

ΤI Cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in the human and guinea pig hippocampus

ΑU Schlicker, E.; Timm, J.; Zentner, J.; Gothert, M.

Institut fur Pharmakologie und Toxikologie, Universitat Bonn, CS Reuterstrasse 2b, Bonn, D-53113, Germany

SO Naunyn-Schmiedeberg's Archives of Pharmacology (19) 583-589 CODEN: NSAPCC; ISSN: 0028-1298

PΒ Springer

DTJournal

LA English

We examd. the question of whether cannabinoid receptors modulating AB noradrenaline release are detectable in the brain of humans and exptl. animals. For this purpose, hippocampal slices from humans, guinea pigs, rats and mice and cerebellar, cerebrocortical and hypothalamic slices from guinea pigs were incubated with [3H] noradrenaline and then superfused. Tritium overflow was evoked either elec. (0.3 or 1 Hz) or by introduction of Ca2+ (1.3 .mu.M) into Ca2+-free; K+-rich medium (25 .mu.M) contg. tetrodotoxin 1 .mu.M. Furthermore, the cAMP accumulation stimulated by forskolin 10 .mu. M was detd. in guinea pig hippocampal membranes. We used the following drugs: the cannabinoid receptor agonists CP-55,940 and WIN 55,212-2, the inactive S(-)-enantiomer of the latter (WIN 55,212-3) and the CB1 receptor antagonist SR 141716. The elec. evoked tritium overflow from guinea pig hippocampal slices was reduced by WIN 55,212-2 (pIC30% 6.5) but not affected by WIN 55,212-3 up to 10 .mu.M. The concn.-response curve of WIN 55,212-2 was shifted to the right by SR 141716 (0.032 .mu.M) (apparent pA2 8.2), which by itself did not affect the evoked overflow. WIN 55,212-2 (1 .mu.M) also inhibited the Ca2+-evoked tritium overflow in guinea pig hippocampal slices and the elec. evoked overflow in guinea pig cerebellar, cerebrocortical and hypothalamic slices as well as in human hippocampal slices but not in rat and mouse hippocampal slices. SR $141716 \ (0.32 .mu.M)$ markedly attenuated the WIN 55,212-2-induced inhibition in guinea pig and human brain slices. SR $141716 \ (0.32 \ .mu.M)$ by itself increased the elec. evoked tritium overflow in guinea pig hippocampal slices but failed to do so in slices from the other brain regions of the guinea pig and in human hippocampal slices. The cAMP accumulation stimulated by forskolin was reduced by CP-55,940 and WIN 55,212-2. The concn.-response curve of CP 55,940 was shifted to the right by SR 141716 (0.1 .mu.M; apparent pA2 8.3), which by itself did not affect cAMP accumulation. In conclusion, cannabinoid receptors of the CB1 subtype occur in the human hippocampus, where they may contribute to the psychotropic effects of cannabis, and in the quinea pig hippocampus, cerebellum, cerebral cortex

ΙT

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and hypothalamus. The CB1 receptor in the guinea pig hippocampus is located presynaptically, is activated by endogenous cannabinoids and may be neg. coupled to adenylyl cyclase. 168273-06-1, SR 141716 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in human and guinea pig brain) L66 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2002 ACS 1997:496071 HCAPLUS 127:185723 Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors Arnone, Michele; Maruani, Jeanne; Chaperon, Frederique; Thiebot, Marie-Helene; Poncelet, Martine; /Soubrie, Philippe; Le Fur, Gerard Sanofi Recherche, Route d'Espagne, Toulouse, F-31000, Fr. Psychopharmacology (Berlin) (1997), 132(1), 104-106 CODEN: PSCHDL; ISSN: 0033-3158 Springer Journal English SR 141716, a selective central CB1 cannabinoid receptor antagonist, markedly and selectively reduces sucrose feeding and drinking as well as neuropeptide Y-induced sucrose drinking in rats. SR 141716 also decreases ethanol consumption in C57BL/6 mice. In contrast, blockade of CB1 receptors only marginally affects regular chow intake or water drinking. The active doses of ${\bf SR}$ 141716 (0.3-3 mg/kg) are in the range known to antagonize the characteristic effects induced by cannabinoid receptor agonists. These results suggest for the first time that endogenous cannabinoid systems may modulate the appetitive value of sucrose and ethanol, perhaps by affecting the activity of brain reward systems. 168273-06-1, SR 141716 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cannabinoid antagonist SR 141716 selective inhibition of sucrose and ethanol intake) ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2002 ACS L66 1997:433633 HCAPLUS 127:55894 Stable freeze-dried pharmaceutical formulation containing mannitol and alanine Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe Sanofi, Fr.; Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe PCT Int. Appl., 43 pp. CODEN: PIXXD2 Patent French FAN.CNT 1 PATENT NO. KIND APPLICATION NO. _____ ____ _____ 19970515 WO 1996-FR1706 WO 9717064 A1 19961030 <--AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, W: AL, AM, AT, AU,

RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,

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     WO 1996-FR1706
                      W
                            19961030 <--
AΒ
     A pharmaceutically acceptable freeze-dried formulation consisting of an
     amorphous phase and a cryst. phase and including at least one non-protein
     active principle is disclosed. The formulation is characterized in that
     it contains mannitol and alanine in a ratio R of 0.1-1, where R is the wt.
     of mannitol over the wt. of alanine. A free-dried pharmaceutical
     contained SR 57746A 0.44, alanine 72.0, mannitol 36.0, citric acid 30.8,
     and Polysorbate-80 4.0 mg.
IT
     168273-06-1
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (stable freeze-dried pharmaceutical formulation contq. mannitol and
        alanine)
    ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2002 ACS
L66
     1997:359669 HCAPLUS
ΑN
DN
     127:75864
ΤI
     Atypical location of cannabinoid receptors in white matter areas during
     rat brain development
     Romero, J.; Garcia-Palomero, E.; Berrendero, F.; Garcia-Gil, L.;
ΑU
     Hernandez, M. L.; Ramos / J. A.; Fernandez-Ruiz, J. J.
     Inst. Complutense Drog dependencias, Dep. Biochem., Fac. Med., Complutense
CS
     Univ., Madrid, Spain
     Synapse (New York) (199%), 26(3), 317-323
SO
     CODEN: SYNAET; ISSN: /088 > 4476
PB
     Wiley-Liss
DT
     Journal
LA
     English
     Previous evidence suggest that the endogenous cannabinoid system could
AΒ
     merge and be operative early during brain development. In the present
     study, the authors have explored the distribution of specific binding for
     cannabinoid receptors in rat brain at gestational day 21 (GD21), postnatal
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Previous evidence suggest that the endogenous cannabinoid system could merge and be operative early during brain development. In the present study, the authors have explored the distribution of specific binding for cannabinoid receptors in rat brain at gestational day 21 (GD21), postnatal days 5 (PND5) and 30 (PND30), and at adult age (>70 days after birth) by using autoradiog. with [3H]CP-55,940. The results indicated that specific binding for cannabinoid receptors can be detected in the brain of rat fetuses at GD21 in the classic areas that contain these receptors in adulthood-in particular, in the cerebellum and the hippocampus and, to a lesser extent, in the basal ganglia, several limbic structures, and cerebral cortex. The d. of cannabinoid receptors in all these structures increased progressively at all postnatal ages studied until reaching the classical adult values in 70-day-old animals. Interestingly, cannabinoid

receptor binding can also be detected at GD21 in regions, in which they are scarcely distributed or not located in the adult brain and that have the particularity of all being enriched in neuronal fibers. Among these were the corpus callosum, anterior commissure, stria terminalis, fornix, white matter areas of brainstem, and others. This atypical location was quant. high at GD21, tended to wane at PND5, and practically disappeared PND30 and in adulthood, with the only exception being the anterior commissure, which exhibited a moderate d. for cannabinoid receptors. Moreover, the binding of [3H]CP-55,940 to cannabinoid receptors in the white matter regions at GD21 seems to be functional and involves a GTP-binding protein-mediated mechanism. Thus, the activation of these receptors with an agonist such as WIN-55,212-2 increased the binding of [35S]-guanylyl-5'-O-(.gamma.-thio)-triphosphate, measured by autoradiog., in the corpus callosum and white matter areas of brainstem of fetuses at GD21. This increase was reversed by coincubation of WIN-55,212-2 with SR141716, a cannabinoid receptor antagonist. As this antagonist is specific for the cerebral cannabinoid receptor subtype, called CB1, the authors can assert that the signal found for cannabinoid receptor binding in the fetal and early postnatal brain likely corresponds to this receptor subtype. Collectively, all these data suggest that existence of a transient period of the brain development in the rat, around the last days of the fetal period and the first days of postnatal life, in which CB1 receptors appear located in neuronal fiber-enriched areas. During this period, CB1 receptors would be already functional acting through a GTP-binding protein-mediated mechanism. After this transient period, they progressively acquire the pattern of adult distribution. All this accounts for a specific role of the endogenous cannabinoid system in brain development.

IT 168273-06-1, SR141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (atypical location of cannabinoid receptors in white matter areas during rat brain development)

L66 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:311258 HCAPLUS

DN 127:5085

TI Pyrazole derivatives as cannabinoid receptor agonists

IN Barth, Francis; Casellas, Pierre; Congy, Christian; Martinez, Serge; Rinaldi, Murielle; Anne-Archard, Gilles

PA Sanofi, Fr.

SO U.S., 45 pp., Cont.-in-part of U.S. Ser. No. 168,237, abandoned. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

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PI	US 5624941		19970429		US 1994-348881	19941129 <
	FR 2692575	A1	19931224		FR 1992-7645	19920623 <
	FR 2692575	B1	19950630			
	FR 2713224	A1	19950609		FR 1993-14444	19931202 <
	FR 2713224	B1	19960301			
	FR 2713225	A1	19950609		FR 1994-8974	19940720 <
	FR 2713225	В1	19960301			
	ZA 9409342	A	19951009		ZA 1994-9342	19941124 <
	JP 2001026	541 A2	20010130		JP 2000-238472	19941202 <
PRAI	FR 1992-76	45 A	19920623	<		
	US 1993-79	870 B2	19930623	<		
	FR 1993-14	444 A	19931202	<		
	US 1993-16	8237 B2	19931217	<		
	FR 1994-89	74 A	19940720	<		
	JP 1994-30		19941202	<		

OS MARPAT 127:5085

AB Title compds. I [R, R1 = (un)substituted Ph; R2 = H, alkyl; R3 = amino, (un)substituted alkyl, cycloalkyl aryl, heterocyclic; X = bond, NR4, CH2NR4; R4 = H, alkyl] were prepd. and have cannabinoid receptor affinity (no data). Thus, 4-ClC6H4COEt was treated with EtO2CCO2Et to give 4-ClC6H4C(OLi):CMeCOCO2Et which was cyclized with 2,4-Cl2C6H3NHNH2 to give I [R = 2,4-Cl2C6H3, R1 = 4-ClC6H4, R2 = Me, X = bond, R3 = OEt]. The ester was hydrozyled to the acid, converted to the chloride, and amidated with 1-aminopiperidine to give I [R = 2,4-Cl2C6H3, R1 = 4-ClC6H4, R2 = Me, X = bond, R3 = piperidinoamino].

IT 168273-06-1P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of diarylpyraxole as cannabinoid receptor agonists)

IT 158681-13-1P 169544-42-7P 169544-44-9P 169544-45-0P 169544-46-1P 190141-47-0P 190141-50-5P 190141-51-6P 190141-52-7P 190141-53-8P 190141-54-9P 190141-55-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of diarylpyrazoles as canabinoid receptor agonists)

L66 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:41341 HCAPLUS

DN 126:220668

TI Cannabinoid receptor-mediated inhibition of dopamine release in the retina

AU Schlicker, Eberhard; Timm, Joerg; Goethert, Manfred

CS Institut Pharmakologie Toxikologie, Rheinische Friedrich-Wilhelms-Universitaet, Bonn, D-53113, Germany

SO Naunyn-Schmiedeberg's Archives of Pharmacology (1996), 354(6), 791-795
CODEN: NSAPCC; ISSN: 0028-1298

PB Springer

DT Journal

LA English

The possible occurrence of cannabinoid (CB) receptors was studied on superfused guinea-pig retinal disks preincubated with [3H]dopamine ([3H]DA) or [3H]noradrenaline ([3H]NA). Tritium overflow was evoked either elec. (3 Hz) or by re-introduction of Ca2+ 1.3 mM after superfusion with Ca2+-free medium contg. K+ 30 mM. The accumulation of [3H]DA and [3H]NA was inhibited by the selective inhibitor of the neuronal dopamine transporter GBR-12909 (pICO0% 7.29 and 7.41, resp.) but not by the selective inhibitor of the neuronal noradrenaline transporter desipramine (1 .mu.M). The elec. or Ca2+ evoked tritium overflow in retinal disks preincubated with [3H]DA or [3H]NA was reduced by the CB receptor agonists P-55,940 and WIN 55,2122 (pIC50% in disks preincubated with [3H]NA, elec. stimulation: 7.03 and 6.70, resp.) but not affected by the inactive S(-)enantiomer of the latter, WIN 55,2123 (up to 10 .mu.M). The concn.-response curve of WIN 55,2122 was shifted to the right by the CB1

kim - 10 / 044531receptor antagonist SR 141716 (apparent pA2: 8.29) which, by itself, increased the evoked overflow. The facilitatory effect of SR 141716 was not affected by GBR-12909 and the dopamine receptor antagonist haloperidol. In conclusion, the dopaminergic neurons of the guinea-pig retina can be labeled by both [3H]DA and [3H]NA. Transmitter release from the dopaminergic neurons is inhibited by activation of cannabinoid receptors of the CR1 type, which appear to be tonically activated by an endogenous CB receptor ligand. 168273-06-1, SR 141716 RL: BAC (Biological activity/or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cannabinoid receptor-mediated inhibition of dopamine release in retina) ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2002 ACS L66 1996:556840 HCAPLUS 125:265677 Improvement of memory in rodents by the selective CB1 cannabinoid receptor antagonist, SR 141716 Terranova, J. P.; Storme, J. J.; Lafon, N.; Perio, A.; Rinaldi-Carmona, M.; Le Fur, G.; Soubrie, P. M.; Le Fur, G.; Soubrie, Montpellier, F-34184, Fr. Psychopharmacology (Berlin) (1996), 126(2), 165-172 CODEN: PSCHDL; ISSN: 0033-31/58 Springer Journal English Social short-term memory in roperts is based on the recognition of a juvenile by an adult conspecific when the juvenile is presented on two successive occasions. Cannabimimetics are claimed to induced memory deficits in both humans and animals. In the brain, they mainly bind to CB1 receptors for which anardamide is a purported endogenous ligand. SR 141716, a specific antagonist of CB1 receptors, dose-dependently reverses biochem. and pharmacol. effects of cannabimimetics. More particularly, it antagonizes the inhibition of hippocampal long-term potentiation induced by WIN 55,212-2 and anandamide, and it increases arousal when given alone. The present expts. study the ability of SR 141716 (from 0.03 to 3 mg/kg SC) to facilitate short-term olfactory memory in the social recognition test in rodents. SR 141716 improved social recognition in a long intertrial paradigm with a threshold dose of 0.1 mg/kg SC. At 1 mg/kg, it antagonized the memory disturbance elicited by retroactive

inhibition. Scopolamine (0.06 mg/kg IP) partially reversed its memory-enhancing effect. Moreover, SR 141716 reduced memory deficit in aged rats (0.03-0.1 mg/kg) and mice (0.3-1 mg/kg). As SR 141716 is not known to exhibit any pharmacol.

activity which is not mediated by CB1 receptors, the results strongly support the concept that blockade of CB1 receptors plays an important role in consolidation of short-term memory in rodents and suggest there may be a role for an endogenous cannabinoid agonist tone (anandaminergic) in forgetting.

ΙT 168273-06-1, SR 141716

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (improvement of memory in rodents by the selective CB1 cannabinoid

receptor antagonist SR 141716)

L66 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2002 ACS

ΑN 1995:987208 HCAPLUS

DN 124:76310

ΑN DN

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Inhibition of long-term potentiation in rat hippocampal slices by TIanandamide and WIN55212-2: reversal by SR141716 A, a selective

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antagonist of CB1 cannabinoid receptors
ΑU
     Terranova, Jean-Paul; Michaud, Jean-Claude; Le Fur, Gerard; Soubrie,
     Philippe
CS
     Sanofi Recherche, Montpellier, F-34184, Fr.
SO
     Naunyn-Schmiedeberg's Archives of Pharmacology (1995), 352(5),
     CODEN: NSAPCC; ISSN: 0028-1298
PΒ
     Springer
DT
     Journal
LA
     English
     It has been reported previously that .DELTA.9 tetrahydrocannabinol and the synthetic cannabinoid agonist HU-210 [(-)-11-OH-.DELTA.8-
AB
     dimethylheptyltetrahydrocannabinol] prevent long-term potentiation (LTP) induction in rat hippocampal slices. In this study we confirm that both
     WIN 55212-2 (3 and 10.mu.M), another synthetic cannabinoid agonist, and
     anandamide (10.mu.M), considered to be the endogenous ligand of
     cannabinoid receptors, inhibit LTP formation in the Schaffer
     collateral-CA1 field complex. In add., we show that SR141716 A
     (0.1-10.mu.M), a potent and selective antagonist of CB1 cannabinoid
     receptors, concn.-dependently reversed the inhibition of LTP induced by
     both WIN55212-2 and anandamide. These data indicate that cannabinoid
     receptor agonists inhibit hippocampal LTP formation through CB1 receptor
     activation and that anandamide fould be a candidate for an endogenous
     neuromessenger involved in memory processes.
     158681-13-1
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); BIOL (Biological study)
         (inhibition of long-term potentiation in rat hippocampal slices by
        anandamide and WIN55212-2 and reversal by CB1 cannabinoid receptor
        antagonist)
L66 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2002 ACS
AN
     1995:887840 HCAPLUS
DN
     123:286006
ΤI
     Preparation of N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-
     methylpyrazole-3-carboxamide as a cannabinoid receptor antagonist
     Barth, Francis; Casellas, Pierre; Congy, Christian; Martinez, Serge;
IN
     Rinaldi, Murielle; Anne-Archard, Gilles
     Sanofi, Fr.
PA
SO
     Eur. Pat. Appl., 12 pg.
     CODEN: EPXXDW
DT
     Patent
LA
     French
FAN.CNT 3
     PATENT NO.
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CN 1047775

В

19991229

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PRAI FR 1993-14444
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OS
     CASREACT 123:286006
AB
     The title compd. (I) was pred by treating 4-ClC6H4COEt with (Me3Si)2NLi
     and (CO2Et)2 to give 4-ClC6H4CH(OLi)CHMeCOCO2Et which was cyclocondensed
     with 2,4-Cl2C6H3NHNH2 and the product/sapond. to give 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxylic acid which was amidated
     by 1-aminopiperidine. I had ED50 of 0.4mg/kg orally for antagonism of WIN
     5521-2-induced hypothermia in mice!
     158681-13-1P 168273-06-1P 169544-42-7P
ΤT
     169544-43-8P 169544-44-9P 169544/45-0P
     169544-46-1P
     RL: BAC (Biological activity of effector, except adverse); BSU
     (Biological study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
         (prepn. of N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-
        methylpyrazole-3-carboxamide as a cannabinoid receptor antagonist)
L66
     ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2002 ACS
     1995:823081 HCAPLUS
AN
DN
     123:228179
     Preparation of \grave{\textbf{h}}, 5\text{-diphenyl-3-pyrazolecarboxamide} derivatives with
ΤI
     cannabinoid receptor affinity
IN
     Barth, Francis; Casellas, Pierre; Congy, Christian; Martinez, Serge;
     Rinaldi, Murielle
PA
     SANOFI, Fr.
     Eur. Pat. Appl., 22\pp.
SO
     CODEN: EPXXDW
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                              20010523
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
2714057 A1 19950623 FR 1993-15221 19931217 <--
     FR 2714057
     FR 2714057
                         В1
                               19960308
                         Т3
                               20011016
                                               ES 1994-402890
                                                                  19941215 <--
     ES 2159549
     US 5462960
                         Α
                              1995103\
                                               US 1994-357880
                                                                  19941216 <--
                                               JP 1994-315224
     JP 07324076
                                                                  19941219 <--
                         A2
                               19951212
PRAI FR 1993-15221
                         Α
                              19931217
     MARPAT 123:228179
OS
GI
```

=> fil reg FILE 'REGISTRY' ENTERED AT 09:41:29 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

receptor affinity from)

PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:42:09 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d ide can tot 112

L12 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 190141-47-0 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (E)-2-butenedioate (2:1)

FS STEREOSEARCH

MF C22 H21 C13 N4 O . 1/2 C4 H4 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 168273-06-1 CMF C22 H21 C13 N4 O

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

L12 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN169544-46-1 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-

methyl-N-1-piperidinyl-, phosphate (1:1) (9CI) (CA INDEX NAME) C22 H21 C13 N4 O . H3 O4 P

MF

SR CA

STN Files: CA, CAPLUS, USPATFULL LC

> CM 1

CRN 168273-06-1

CMF C22 H21 C13 N4 O

CM2

7664-38-2 CRN H3 O4 P CMF

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 169544-45-0 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

MF C22 H21 Cl3 N4 O . C7 H8 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 168273-06-1 CMF C22 H21 C13 N4 O

CM 2

CRN 104-15-4 CMF C7 H8 O3 S

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 169544-44-9 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

MF C22 H21 C13 N4 O . H2 O4 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 168273-06-1 CMF C22 H21 C13 N4 O

CM 2

CRN 7664-93-9 CMF H2 O4 S

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 169544-43-8 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4methyl-N-1-piperidinyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (E)-2-butenedioate (1:1)

FS STEREOSEARCH

MF. C22 H21 C13 N4 O . C4 H4 O4

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 168273-06-1

CMF C22 H21 C13 N4 O

CM

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 123:286006

ANSWER 6 OF 7 REGISTRY COPYRIGHT 2002 ACS L12

RN 169544-42-7 REGISTRY

1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME) C22 H21 C13 N4 O . C H4 O3 S CN

MF

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

> CM 1

168273-06-1 CRN CMF C22 H21 C13 N4 O

CRN 75-75-2 CMF C H4 O3 S

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 158681-13-1 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, monohydrochloride (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 141716A

MF C22 H21 C13 N4 O . C1 H

SR CF

LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CEN, EMBASE, MEDLINE, PHAR, PROMT, TOXCENTER,

USPATFULL CRN (168273-06-1)

● HCl

170 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

170 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:179571

REFERENCE 2: 137:164054

REFERENCE 3: 137:135279

REFERENCE 4: 137:134880

REFERENCE 5: 137:30923

REFERENCE 6: 136:395814

REFERENCE 7: 136:350460

REFERENCE 8: 136:273092

REFERENCE 9: 136:226615

REFERENCE 10: 136:129277

=> d 141 ide can tot

L41 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2002 ACS

RN 121524-09-2 REGISTRY

CN Acetic acid, [[(7S)-7-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN SR 58611

CN SR 58611A

FS STEREOSEARCH

MF C22 H26 C1 N O4 . C1 H

SR CA

LC STN Files: ADISINSIGHT, BIOSIS, BIOTECHNO, CA, CAPLUS, DDFU, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, MEDLINE, PHAR, PROMT, TOXCENTER, USPATFULL CRN (121524-08-1)

Absolute stereochemistry.

HCl

52 REFERENCES IN FILE CA (1962 TO DATE) 52 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:210721

REFERENCE 2: 137:195329

REFERENCE 3: 136:334973

REFERENCE 4: 135:205794

REFERENCE 5: 135:103720

REFERENCE 6: 135:40399

REFERENCE 7: 135:29332

REFERENCE 8: 135:435

REFERENCE 9: 134:126373

REFERENCE 10: 133:344976

L41 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2002 ACS

RN 121524-08-1 REGISTRY

CN Acetic acid, [[(2S)-7-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [R-(R*,S*)]-

FS STEREOSEARCH

MF C22 H26 C1 N O4

CI COM

SR CA

LC STN Files: ADISINSIGHT, BIOTECHNO, CA, CAPLUS, CASREACT, EMBASE, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1962 TO DATE)

9 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:55894

REFERENCE 2: 126:99317

REFERENCE 3: 125:133456

REFERENCE 4: 122:132788

REFERENCE 5: 122:105454

REFERENCE 6: 121:230444

REFERENCE 7: 120:153732

REFERENCE 8: 115:57179

REFERENCE 9: 111:39023

=> d 142 ide can tot

L42 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 135025-88-6 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8 tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [S-(R*,R*)]- (9CI) (CA
 INDEX NAME)

FS STEREOSEARCH

MF C22 H26 C1 N O4

CI COM

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:57179

L42 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 135025-87-5 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H26 C1 N O4

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:163882

REFERENCE 2: 115:57179

L42 ANSWER 3 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 129831-97-6 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, [S-(R*,S*)]-(9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58825A

FS STEREOSEARCH

MF C22 H26 C1 N O4 . C1 H

SR CA

LC STN Files: CA, CAPLUS, DDFU, DRUGU, USPATFULL

CRN (135025-87-5)

Absolute stereochemistry.

HC1

5 REFERENCES IN FILE CA (1962 TO DATE) 5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 117:163882

REFERENCE 4: 115:57179

REFERENCE 5: 113:165225

L42 ANSWER 4 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121524-11-6 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58613A

FS STEREOSEARCH

MF C22 H26 Cl N O4 . Cl H

SR CA

LC STN Files: . CA, CAPLUS, USPATFULL

CRN (135025-88-6)

Absoluté stereochemistry.

● HCl

5 REFERENCES IN FILE CA (1962 TO DATE) 5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 117:163882

REFERENCE 4: 113:165225

REFERENCE 5: 111:39023

L42 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121524-10-5 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, [R-(R*,R*)]-(9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58612A

FS STEREOSEARCH

MF C22 H26 C1 N O4 . C1 H

SR CA

LC STN Files: CA, CAPLUS, DDFU, DRUGU, USPATFULL

CRN (121524-07-0)

Absolute stereochemistry.

HCl

5 REFERENCES IN FILE CA (1962 TO DATE) 5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 117:163882

REFERENCE 4: 113:165225

REFERENCE 5: 111:39023

L42 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121524-07-0 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [R-(R*,R*)]- (9CI) (CA
INDEX NAME)

FS STEREOSEARCH

MF C22 H26 C1 N O4

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 115:57179

REFERENCE 3: 111:39023

L42 ANSWER 7 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-36-9 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, (R*,S*)-(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, (R*,S*)-(.+-.)-

OTHER NAMES:

CN SR 58538B

FS STEREOSEARCH.

MF C22 H26 Cl N O4 . Cl H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (121489-32-5)

Relative stereochemistry.

● HCl

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:146279

REFERENCE 2: 111:39023

L42 ANSWER 8 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-35-8 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,R*)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,R*)-(.+-.)-, trifluoroacetate (salt)

FS STEREOSEARCH

MF C22 H26 C1 N O4 . C2 H F3 O2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 121489-34-7 CMF C22 H26 C1 N O4

Relative stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39023

L42 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-34-7 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,R*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,R*)-(.+-.)-

FS STEREOSEARCH

MF C22 H26 C1 N O4

CI COM

SR CA

Relative stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L42 ANSWER 10 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-33-6 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,S*)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,S*)-(.+-.)-, trifluoroacetate (salt)

FS STEREOSEARCH

MF C22 H26 C1 N O4 . C2 H F3 O2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 121489-32-5

CMF C22 H26 C1 N O4

Relative stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39023

L42 ANSWER 11 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-32-5 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,S*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R*,S*)-(.+-.)-

FS STEREOSEARCH

MF C22 H26 C1 N O4

CI COM

SR CA

Relative stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L42 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 120839-54-5 REGISTRY

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, (R*, R*) - (.+-.) -

OTHER NAMES:

SR 58539B CN

FS STEREOSEARCH

MF C22 H26 C1 N O4 . C1 H

SR

LC STN Files: BIOSIS, CA, CAPLUS, EMBASE, USPATFULL

CRN (121489 - 34 - 7)

Relative stereochemistry.

HC1

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:146279

REFERENCE 2: 111:39023

REFERENCE 3: 110:225302

L42 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN

107758-27-0 REGISTRY Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-CN tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58380

FS 3D CONCORD

MF C22 H26 C1 N O4

CI COM

SR CA

LC STN Files: ADISINSIGHT, CA, CAPLUS, CASREACT, SYNTHLINE, USPATFULL

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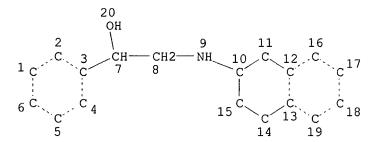
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 120:153732 REFERENCE 2: 106:156084

=> d sta que 193 L85



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

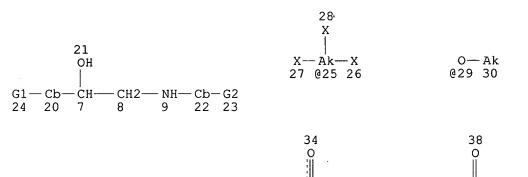
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L87

375 SEA FILE=REGISTRY SSS FUL L85

L88 STR



O-Ak---OH

031 32 33

VAR G1=H/X/AK/25VAR G2=OH/29/31/35 NODE ATTRIBUTES: CONNECT IS M1 RC AT 25 DEFAULT MLEVEL IS ATOM IS MCY UNS AT IS PCY AT 22 GGCAT **GGCAT** DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L90

237 SEA FILE=REGISTRY SUB=L87 SSS FUL L88 L93 76 SEA FILE=REGISTRY SUB=L90 CSS FUL L88

100.0% PROCESSED 237 ITERATIONS

76 ANSWERS

0-Ak-

@35 36 37 39

- O- Ak

SEARCH TIME: 00.00.01

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=> d his 193-
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(FILE 'REGISTRY' ENTERED AT 09:45:36 ON 13 OCT 2002) L93 76 S L88 CSS FUL SUB=L90 SAV L93 JKIM44531D/A L94 161 S L90 NOT L93 L95 61 S L93 NOT L41, L42 FILE 'HCAPLUS' ENTERED AT 10:12:57 ON 13 OCT 2002 L96 18 S L95 18 S L96 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128) L97 L98 13 S L97 AND L71 L99

FILE 'REGISTRY' ENTERED AT 10:14:11 ON 13 OCT 2002

49 S L71, L97, L98

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 10:14:26 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 13 Oct 2002 VOL 137 ISS 16 FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d 199 bib abs hitrn retable tot

```
L99 ANSWER 1 OF 49 HCAPLUS COPYRIGHT 2002 ACS
    2001:521902 HCAPLUS
ΑN
    135:103720
DN
TΙ
    Method of reducing nicotine and tobacco craving in mammals
    Coffin, Vicki L.; Glue, Paul W.
IN
PΑ
    Schering Corp., USA
    U.S., 20 pp.
SO
    CODEN: USXXAM
DT
    Patent
LA English
FAN.CNT 1
    PATENT NO. KIND DATE APPLICATION NO. DATE
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19981023 <--
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                                           US 1998-178447
PΙ
    US 2001025038
                      A1
                            20010927
                                           US 2001-846170
                                                            20010501 <--
PRAI US 1997-64563P
                      Ρ
                            19971028 <--
                      A3
    US 1998-178447
                            19981023
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A method of reducing cravings in a mammal to nicotine or tobacco is AB disclosed. The method comprises administering to the mammal an effective amt. of a D1/D5 antagonist or a D1/D5 partial agonist alone or in combination with other specified CNS compds.

TΨ 121524-09-2, SR 58611a

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method of reducing nicotine and tobacco craving in mammals)

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Referenced Author	Year		•	Referenced Work	Referenced
(RAU) -		(KAT)	(RPG)	(RWK) +====================================	File
	1996		+		LUCADI UC
Anon			!	·	HCAPLUS
Anon	1997			·	HCAPLUS
Anon	1999		1	WO 9915161	HCAPLUS
Bednar	1995	269	R896	American J of Physio	MEDLINE
Caine, S	1994	270	1209	The Journal of Pharm	HCAPLUS
Cervo	1996	731	31	Brain Research	HCAPLUS
Cervo, L	1995	673	242	Brain Research	HCAPLUS
Corrigall	1994	48	817	Pharmacology Biochem	HCAPLUS
Dry, W	1993	10	207	Alcohol	
Dyr	1 1		1	Biological Abstracts	
Gordon, Y	1994		365	European Journal of	
Ng	1994		1	Medline Abstracts, a	
Nielsen	1985	11	167	European Journal of	I
Panocka, I	1995	120	227	Psychopharmacology	HCAPLUS
Paul, A	1993	21	1	JACC	HCAPLUS
Samochowiec	1995	50	815	Pharmazie	HCAPLUS
Sydney, A	1996	6	1139	Bioorganic & Medicin	1

- L99 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- ΑN 1998:743877 HCAPLUS
- DN 130:119495
- ΤI Beta-3 adrenergic receptor agonists cause an increase in gastrointestinal transit time in wild-type mice, but not in mice lacking the beta-3 adrenergic receptor
- Fletcher, Daniel S.; Candelore, Mari Rios; Grujic, Danica; Lowell, ΑU Bradford B.; Luell, Silvi; Susulic, Vedrana S.; Macintyre, D. Euan
- Department of Pharmacology, Merck and Co., Rahway, NJ, USA CS
- SO Journal of Pharmacology and Experimental Therapeutics (1998), 287(2), 720-724 CODEN: JPETAB; ISSN: 0022-3565
- PB Lippencott Williams & Wilkins
- DT Journal
- LA English
- The effects of beta-3 adrenergic receptor (.beta.3-AR) agonists on gastrointestinal (GI) motility, as reported by stomach retention and intestinal transit of radiolabeled charcoal, were compared in wild-type (WT) mice and in transgenic mice lacking .beta.3-AR (.beta.3-AR[KO]) or having .beta.3-AR in white and brown adipose tissue only (.beta.3-AR[WAT + BAT]). After s.c. administration of 3 mg/kg of the selective, rodent specific .beta.3-AR agonists BRL 35135, CL 316,243 or ICI 198,157, WT mice exhibited a significant decrease in the extent of movement of radiotracer through the stomach and intestines, indicative of decreased GI motility. These compds. also caused an increase in plasma glycerol levels in the WT mice, suggesting that increased lipolysis in adipose tissue had been evoked. None of these compds. had an effect on GI motility or evoked lipolysis in the .beta.3-AR[KO] mice. Treatment of WT mice with SR 58611A, a .beta.3-AR agonist that exhibited a relatively lower affinity for rodent .beta.3-AR in vitro, did not affect

GI motility or plasma glycerol levels in WT or .beta.3[KO] mice when administered s.c. at 3 mg/kg. Clonidine, an alpha-2 adrenergic receptor agonist, used as a pos. control in these GI studies, caused a decrease in GI motility in both WT and .beta.3-AR[KO] mice. These results are consistent with a postulated role for .beta.3-AR in regulation of GI motility in the mouse. However, treatment of .beta.3-AR[WAT + BAT] mice with 3 mg/kg BRL 35135 resulted in elevated plasma glycerol levels, as well as increased stomach retention and decreased intestinal transit of radiotracer. These results suggest that this .beta.3-AR agonist may exert its effects on the GI tract indirectly, through an unknown signaling mechanism activated by agonism of .beta.3-AR in adipose tissue.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (beta-3 adrenergic receptor agonists cause increase in gastrointestinal transit time in wild-type mice but not in mice lacking beta-3 adrenergic receptor in relation to effect of lipolysis by adipose tissue)

RETABLE

	(RPY)	(RVL)		(RWK)	Referenced File
	1993		1663		HCAPLUS
Arch, J	11984	1309	163	Nature	HCAPLUS
Bensaid, M	11993	318	1223	FEBS Lett	HCAPLUS
Berkowitz, D	11995	1289	1223	Eur J Pharmacol	HCAPLUS
Bond, R	11988	195	1723	Br J Pharmacol	HCAPLUS
Candelore, M	11996	137	12638	Endocrinology	HCAPLUS
Chang, F	11995	155	1457	Acta Physiol Scand	HCAPLUS
Cohen, M	1995	272	446	J Pharmacol Exp Ther	HCAPLUS
Collins, S	11994	18	518	Mol Endocrinol	HCAPLUS
Croci, T	11991	13	1273	J Gastrointest Motil	†
Croci, T	1988	120	1147	Pharmacol Res Commun	HCAPLUS
de Boer, R	11995	116	1945	Br J Pharmacol	HCAPLUS
De Ponti, F	11995	114	1447	Br J Pharmacol	HCAPLUS
De Ponti, F	1996	169	59	Pharmacol Ther	HCAPLUS
Eliasson, B			79	Diabetologia	MEDLINE
Emorine, L	1989	1245	1118	Science	HCAPLUS
Evans, B	11996	117	210	Br J Pharmacol	HCAPLUS
Giudice, A	11989	4 4	1411	Life Sci	HCAPLUS
Granneman, J	1991	40	1895	Mol Pharmacol	HCAPLUS
Grujic, D	1997	272	17686	J Biol Chem	HCAPLUS
Howe, R	1992	35	1751	J Med Chem	HCAPLUS
Lafontan, M	1993	34	1057	J Lipid Res	HCAPLUS
Landi, M	1993	53	297	Life Sci	
Lezama, E	1996	308	169	Eur J Pharmacol	HCAPLUS
Manara, L	1996	117	435	Br J Pharmacol	HCAPLUS
Manara, L	1995	19	332	Fund Clin Pharmacol	HCAPLUS
Maugeri, S	1994	17	148	J Vet Pharmacol Ther	HCAPLUS
Miller, M	1961	6	211	J Pharmacol Methods	
	1991	1266	24053	J Biol Chem	HCAPLUS
Nahmias, C	1991		3721	EMBO J	HCAPLUS
3.	11996		A257	Br J Anesthesia	1
Spiegelman, B	•		1377	Cell	HCAPLUS
Susulic, V	11995	1270	129483	J Biol Chem	HCAPLUS
·			143	Neurogastroenterol M	MEDLINE
van der Vliet, A	•	•	218	J Pharmacol Exp Ther	HCAPLUS
Yoshida, T	11996	145	787	Metabolism	HCAPLUS

L99 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:557719 HCAPLUS

DN 129:270414

TI Effects of .beta.3-adrenoceptor agonist SR 58611A on

- gastric acid secretion and histamine release in the \log : comparison with ritodrine
- AU Bertini, Simone; Coruzzi, Gabriella; Intorre, Luigi; Soldani, Giulio
- CS Laboratory of Pharmacology, Faculty of Veterinary Medicine, University of Pisa, Pisa, I-56124, Italy
- SO General Pharmacology (1998), 31(4), 625-631 CODEN: GEPHDP; ISSN: 0306-3623
- PB Elsevier Science Inc.
- DT Journal
- LA English
- AB The involvement of .beta.3 adrenoceptors in the control of gastric acid secretion and histamine release was investigated in the dog. In conscious dogs, SR 58611A (0.0625-1.0 mg/kg/h IV) dose dependently inhibited gastric acid secretion induced by pentagastrin. Maximal inhibition (40%) was obtained with the dose of 1 mg/kg. Ritodrine (1 mg/kg/h IV) also induced a marked inhibition (85%) of gastric acid secretion stimulated by pentagastrin. On 2-deoxy-d-glucose-stimulated acid secretion, both SR 58611A and ritodrine at 1 mg/kg/h IV showed inhibitory effects. On these expts., ritodrine, but not SR 58611A, significantly reduced plasma gastrin concns. In anesthetized dogs, histamine concns. from gastrosplenic vein increased fivefold after the infusion of pentagastrin. SR 58611A (1 mg/kg/h IV) did not significantly modify the stimulant effect of pentagastrin on histamine release. In contrast, ritodrine (1 mg/kg/h IV) significantly inhibited histamine release induced by pentagastrin. These data suggest that .beta.3 adrenoceptors may participate in the neg. control of gastric acid secretion in the dog, probably through a histamine-independent mechanism.
- IT 121524-09-2, SR 58611A
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (.beta.3-adrenoceptor agonist SR 58611A effects on gastric acid secretion and histamine release in the dog in comparison with ritodrine)
- L99 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1998:306016 HCAPLUS
- DN 129:76216
- TI Influence of .beta.-adrenoceptor agonists on the pulmonary circulation. Effects of a .beta.3-adrenoceptor antagonist, SR 59230A
- AU Dumas, Monique; Dumas, Jean-Paul; Bardou, Marc; Rochette, Luc; Advenier, Charles; Giudicelli, Jean-Francois
- CS Laboratoire de Physiopathologie et de Pharmacologie Cardiovasculaires Experimentales, Faculte de Medecine, Dijon, 21000, Fr.
- SO European Journal of Pharmacology (1998), 348(2/3), 223-228 CODEN: EJPHAZ; ISSN: 0014-2999
- PB Elsevier Science B.V.
- DT Journal
- LA English
- The aims of this study were (a) to compare in the rat isolated perfused lung prepn., the effects of isoprenaline and of three .beta.3-adrenoceptors agonists, SR 59104A, [N-[[6-hydroxy-1,2,3,4-tetrahydronaphthalen-(2R)-2yl]methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl], SR 59119A [N-[[7-methoxy-1,2,3,4-tetrahydronaphtalen-(2R)-2yl]methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl] and SR 58611A [ethyl [(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphthalen-2-yloxy]acetate-HCl] on hypoxia-induced pulmonary vasoconstriction, and (b) to investigate the potential existence of atypical .beta.-adrenoceptors in these effects. Propranolol (0.1 .mu.M) was used to antagonize .beta.1- and .beta.2-adrenoceptors whereas SR 59230A, 3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronapht-1-ylamino]-(2S)-2-propanol oxalate) (0.3 .mu.M) was used to block .beta.3-adrenoceptors.

Isoprenaline and the three .beta.3-adrenoceptors agonists caused concn.-dependent relaxations during the pulmonary pressure response. Propranolol and SR 59230A inhibited the relaxant effects of isoprenaline. SR 59230A but not propranolol inhibited those of SR 59104A. Finally, propranolol and SR 59230A failed to oppose SR 59119A- and SR 58611A-induced relaxant effects. In concns. .gtoreq.1 .mu.M, SR 59230A caused per se a relaxation of the hypoxic vasoconstricted lung. These results suggest the existence of atypical .beta.-adrenoceptors in the rat pulmonary vessels.

IT 121524-09-2, SR58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (.beta.-adrenoceptor agonists and .beta.3-adrenoceptor antagonist SR 59230A effect on pulmonary circulation)

- L99 ANSWER 5 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1998:122129 HCAPLUS
- DN 128:239539
- TI Validity of (-)-[3H]-CGP 12177A as a radioligand for the "putative .beta.4-adrenoceptor" in rat atrium
- AU Sarsero, Doreen; Molenaar, Peter; Kaumann, Alberto J.
- CS Department of Pharmacology, University of Melbourne, Parkville, 3052, Australia
- SO British Journal of Pharmacology (1998), 123(3), 371-380 CODEN: BJPCBM; ISSN: 0007-1188
- PB Stockton Press
- DT Journal
- LA English
- AΒ We have recently suggested the existence in the heart of a "putative .beta.4-adrenoceptor" based on the cardiostimulant effects of non-conventional partial agonists, compds. that cause cardiostimulant effects at greater concns. than those required to block .beta.1- and .beta.2-adrenoceptors. We sought to obtain further evidence by establishing and validating a radioligand binding assay for this receptor with (-)-[3H]-CGP 12177A ((-)-4-(3-tertiary)butylamino-2-hydroxypropoxy)benzimidazol-2-one) in rat atrium. We investigated (-)-[3H]-CGP 12177A for this purpose for two reasons, because it is a non-conventional partial agonist and also because it is a hydrophilic radioligand. Increasing concns. of (-)-[3H]-CGP 12177A, in the absence or presence of 20 .mu.M (-)-CGP 12177A to define non-specific binding, resulted in a biphasic satn. isotherm. Low concns. bound to .beta.1- and .beta.2-adrenoceptors (pKD 9.4.+-.0.1, Bmax 26.9.+-.3.1 fmol mg-1 protein) and higher concns. bound to the "putative .beta.4-adrenoceptor" (pKD 7.5.+-.0.1, Bmax 47.7.+-.4.9 fmol mg-1 protein). In other expts. designed to exclude .beta.1- and .beta.2-adrenoceptors, (-)-[3H]-CGP 12177A (1-200 nM) binding in the presence of 500 nM (-)-propranolol was also saturable (pKD 7.6.+-.0.1, Bmax 50.8.+-.7.4 fmol mg-1 protein). The non-conventional partial agonists (-)-CGP 12177A (pKi 7.3.+-.0.2), (.+-.)-cyanopindolol (pKi 7.6.+-.0.2), (-)-pindolol (pKi 6.6.+-.0.1) and (.+-.)-carazolol (pKi 7.2.+-.0.2) and the antagonist (-)-bupranolol (pKi 6.6.+-.0.2), all competed for (-)-[3H]-CGP 12177A binding in the presence of 500 nM (-)-propranolol at the "putative .beta.4-adrenoceptor", with affinities closely similar to potencies and affinities detd. in organ bath studies. The catecholamines competed with (-)-[3H]-CGP 12177A at the "putative .beta.4-adrenoceptor" in a stereoselective manner, (-)-noradrenaline (pKiH 6.3.+-.0.3, pKiL 3.5.+-.0.1), (-)-adrenaline (pKiH 6.5.+-.0.2, pKiL 2.9.+-.0.1), (-)-isoprenaline (pKiH 6.2.+-.0.5, pKiL 3.4.+-.0.1), (+)-isoprenaline (pKi<1.7), (-)-RO363 ((-)-(1-(3,4dimethoxyphenethylamino)-3-(3,4-dihydroxyphenoxy)-2-propranol)oxalate, pKi 5.5.+-.0.1). The inclusion of guanosine 5-triphosphate (GTP 0.1 mM) had no effect on binding of (-)-CGP 12177A or (-)-isoprenaline to the "putative .beta.4-adrenoceptor". In competition binding studies, (-)-CGP 12177A competed with (-)-[3H]-CGP 12177A for one receptor state in the

absence (pKi 7.3.+-.0.2) or presence of GTP (pKi 7.3.+-.0.2). (-)-Isoprenaline competed with (-)-[3H]-CGP 12177A for two states in the absence (pKiH 6.6.+-.0.3, pKiL 3.5.+-.0.1; % H 25.+-.7) or presence of GTP (pKiH 6.2.+-.0.5, pKiL 3.4.+-.0.1; % H 37.+-.6). In contrast, at .beta.1-adrenoceptors, GTP stabilized the low affinity state of the receptor for (-)-isoprenaline. The specificity of binding to the "putative .beta.4-adrenoceptor" was tested with compds. active at other receptors. High concns. of the .beta.3-adrenoceptor agonists, BRL 37344 ((RR + SS)[4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]phenoxy]a cetic acid, 6 .mu.M), SR 58611A (ethyl{(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphtyl-2-yloxy} acetate hydrochloride, 6 .mu.M), ZD 2079 ((.+-.)-1-phenyl-2-(2-4-carboxymethylphenoxy)-ethylamino)-ethan-1-ol, 60 .mu.M, CL 316243 (disodium (R,R)-5-[2-[2-(3-chlorophenyl)-2-hydroxyethyl-amino]propyl]-1,3benzodioxole-2,2-dicarboxylate, 60 .mu.M) and antagonist SR 59230A (3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaphth-1-ylamino]-2S-2-propanol oxalate, 6 .mu.M) caused less than 22% inhibition of (-)-[3H]-CGP 12177A binding in the presence of 500 nM (-)-propranolol. Histamine (1 mM), atropine (1 .mu.M), phentolamine (10 .mu.M), 5-HT (100 .mu.M) and the 5-HT4 receptor antagonist SB 207710 ((1-butyl-4-piperidinyl)-Me-8-amino-7-iodo-1,4-benzodioxan-5-carboxylate, 10 nM) caused less than 26% inhibition of binding. Non-conventional partial agonists, the antagonist (-)-bupranolol and catecholamines all competed for (-)-[3H]-CGP 12177A binding in the absence of (-)-propranolol at .beta.1-adrenoceptors, with affinities (pKi) ranging from 1.6-3.6 \downarrow og orders greater than at the "putative .beta.4-adrenoceptor". We have established and validated a radioligand binding assay in rat atrium for the "putative .beta.4-adrenoceptor" which is distinct from .beta.1-, .beta.2- and .beta.3-adrenoceptors. The stereoselective interaction with the catecholamines provides further support for the classification of the receptor as "putative .beta.4-acrenoceptor". 121524-09-2, SR 58611A

IT 121524-09-2, SR 58611A

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(validity of (-)-[3H]-CCP 12177A as a radioligand for putative beta.4-adrenoceptor in rat atrium in relation to competitive binding assays with other agonists and antagonists)

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L99 ANSWER 6 OF 49 HCAPLUS COPYRIGHT 2002 ACS
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AN 1998:87713 HCAPLUS

DN 128:154013

- TI Preparation of 3-(2-pyridylaminoalkyl)-1-phenoxypropanolamines having .beta.3-adrenergic antagonist activity
- IN Badone, Domenico; Cecchi, Roberto; Croci, Tiziano; Guzzi, Umberto; Manara, Luciano
- PA Sanofi, Fr.; Badone, Domenico; Cecchi, Roberto; Croci, Tiziano; Guzzi, Umberto; Manara, Luciano
- SO PCT Int. Appl., 27 pp. CODEN: PIXXD2

DT Patent

LA French

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			DK,	EE,	ES,	FI,	GB,	GE,	GH,	HU,	IL,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	
			LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	
			PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,	UG,	US,	
			UZ,	VN,	YU,	ZW,	AM,	ΑZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM				
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			GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	
•			GN,	ML,	MR,	NE,	SN,	TD,	TG										

FR 2751646 19980130 A1 FR 1996-9203 19960723 <--FR 2751646 19990122 В1 AU 9738529 A1 19980210 AU 1997-38529 19970722 <--PRAI FR 1996-9203 19960723 <--WO 1997-FR1360 19970722 <--CASREACT 128:154013; MARPAT 128:154013 GI

$$R^{1}-o-C_{6}H_{4}-O-CH_{2}$$

$$NH_2ZNH \longrightarrow R^2$$

AB 1-(2-Alkylphenoxy)-3-(2-pyridylaminoalkylamino)propan-2-ols I (R1 = C3-C7 alkyl or C3-C7 cycloalkyl; R2 = H, electron-accepting group; Z = C2-C3 alkylene), their salts, enartiomers, and pharmaceutical compns. contg. I having .beta.3-adrenergic receptor antagonist activity are disclosed. as is a method for prepg. them. Compds. I are prepd. via reaction of 1,2-epoxypropanes II with N (2-pyridyl)alkylenediamines III. Thus, reaction of 3-(2-tert-butylphenoxy)-1,2-epoxypropane (prepn. given) with N-(5-nitro-2-pyridinyl)ethylenediamine in refluxing EtOH overnight afforded 1-(2-tert-butylphenoxy)-3-[2-(5-nitro-2-pyridinylamino)ethylamino]propan-2-ol, which was converted to its (hydrochloride salt. Chlorohydrates of racemic I inhibited the thermogenic effect induced by SR 58611 in an in vivo study of their .beta.3-antagonist activity on brown fat tissue receptors in rat. Pharmaceutically acceptable compns. contg. I are discussed.

- L99 ANSWER 7 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1997:806284 HCAPLUS
- DN 128:113275
- TI Comparison between .beta.3 and .beta.2 adrenoceptor agonists as inhibitors of gastric acid secretion
- AU Coruzzi, G.; Spaggiari, S.; Bertaccini, G.
- CS Institute Pharmacology, University Parma, Parma, 43100, Italy
- SO Journal of Physiology (Paris) (1997), 91(3-5), 241-246 CODEN: JHYSEM; ISSN: 0928-4257
- PB Editions Scientifiques et Medicales Elsevier
- DT Journal
- LA English
- AB In order to investigate the role of .beta.3 adrenoceptors in the regulation of gastric acid secretion we studied the effects of compd. SR58611A (a selective agonist for atypical .beta. adrenoceptors), alone or in combination with .beta.-adrenoceptor antagonists, in the gastric fistula of a conscious cat. The effects of SR58611A were compared with those of clenbuterol, a selective agonist for .beta.2 adrenoceptors. I.v. infusion of SR58611A (0.3-3 .mu.mol/kg/h) caused a dose-dependent, but partial, inhibition of the acid secretory response to 2-deoxy-D-glucose 100 mg/kg i.v., max. effect not exceeding 40%. Clenbuterol (0.03-0.1 .mu.mol/kg/h) caused a similar effect (max.

inhibition about 50%) at doses approx. 30 times lower. The acid secretion induced by the histamine H2-receptor agonist dimaprit (1 .mu.mol/kg/h) was minimally affected by both .beta. adrenoceptor agonists. The inhibitory effect of SR58611A (3 .mu.mol/kg/h) on 2-deoxy-D-glucose-induced acid secretion was not modified by pretreatment with the non-selective .beta.1- and .beta.2-adrenoceptor blocker propranolol, administered at doses (1.5 .mu.mol/kg i.v.) that completely blocked the inhibitory effect of clenbuterol (0.1 .mu.mol/kg/h). In contrast, bupranolol (10 .mu.mol/kg i.v.)(a drug endowed with .beta.3 antagonistic properties) prevented the inhibitory effects of both SR58611A and clenbuterol. The present data provide functional evidence that, besides .beta.2-, also .beta.3-adrenoceptors can have neg. effects on gastric acid secretion, particularly when it is stimulated by indirect stimuli, like 2-deoxy-D-glucose. This gastric antisecretory activity may represent an addnl. mechanism for the physio-pharmacol. control of gastric acid secretion.

ΙT 121524-09-2, SR58611A

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (comparison between .beta.3 and .beta.2 adrenoceptor agonists as inhibitors of gastric acid secretion)

- ANSWER 8 OF 49 HCAPLUS COPYRIGHT 2002 ACS L99
- 1997:751676 HCAPLUS AN
- DN 128:84320
- TILipolytic effects of conventional .beta.3-adrenoceptor agonists and of CGP 12,177 in rat and human fat cells: preliminary pharmacological evidence for a putative .beta.4-adrenoceptor
- ΑU Galitzky, Jean; Langin, Dominique; Verwaerde, Patrick; Montastruc, Jean-Louis; Lafontan, Max; Berlan, Michel
- CS Laboratoire de Pharmacologie Medicale et Clinique, Unite 317 Institut National de la Sante et de la Recherche Medicale, Faculte de Medecine, Universite Paul Sabatier, Toulouse, 31073, Fr.
- SO British Journal of Pharmacology (1997), 122(6), 1244-1250 CODEN: BJPCBM; ISSN: 0007-1188
- PB Stockton Press
- DT Journal
- English LA
- The nature of rat and human fat cell .beta.3-adrenoceptors was AB investigated by studying the effects of the new .beta.3-adrenoceptor selective antagonist, SR 59,230A, on lipolysis induced by the conventional .beta.3-adrenoceptor agonists, CL 316,243 and SR 58, 611A, and by the non-conventional partial .beta.3-adrenoceptor agonist CGP 12,177 (a potent .beta.1- and .beta.2-adrenoceptor antagonist with partial .beta.3-adrenoceptor agonist property). In rat fat cells, the rank order of potency of agonists was: CL 316,243 > isoprenaline >SR 58,611A > CGP 12,177. The three former agents were full agonists whereas CGP 12,177 was a partial agonist (intrinsic activity of 0.70). In human fat cells, the lipolytic effect of CGP 12,177 reached 25 % of isoprenaline effect. CL 316,243 was a poor inducer of lipolysis and SR 58,611A was ineffective. In rat fat cells, lipolysis induced by CL 316,243 and SR 58,611A was competitively antagonized by SR 59,230A. Schild plots were linear with pA2 values of 6.89 and 6.37, resp. Conversely, 0.1, 0.5 and 1 .mu.M SR 59,230A did not modify the concn.-response curve of CGP 12,177. A rightward shift of the curve was however obsd. with 10 and 100 .mu.M of SR 59,230A. The apparent pA2 value was 5.65. The non-selective .beta.-adrenergic antagonist, bupranolol, competitively displaced the concn.-response curve of CGP 12,177 and CL 316,243. Schild plots were linear with pA2 values of 6.70 and 7.59, resp. CL316,243-mediated lipolytic effect was not antagonized by CGP 20,712A. In human fat cells, CGP 12,177-mediated lipolytic effect was antagonized

by bupranolol and CGP 20,712A. SR 59,230A (0.1, 1 and 10 .mu.M) did not

modify the concn.-response curve of CGP 12,177. A rightward shift was however obsd. at 100 .mu.M leading to an apparent pA2 value of 4.32. The results suggest that the non-conventional partial agonist CGP 12,177 can activate lipolysis in fat cells through the interaction with a .beta.-adrenoceptor pharmacol. distinct from the .beta.3-adrenoceptor, i.e. through a putative .beta.4-adrenoceptor. They suggest that the two subtypes coexist in rat fat cells whereas only the putative .beta.4-adrenoceptor mediates lipolytic effect of CGP 12,177 in human fat cells.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (lipolytic effects of conventional .beta.3-adrenoceptor agonists and of CGP 12,177 in rat and human fat cells and evidence for a putative .beta.4-adrenoceptor)

Ŀ99 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2002 ACS

1997:567066 HCAPLUS ΑN

DN 127:275950

ΤI Characterization of a novel iodocyanopindolol and SM-11044 binding protein, which may mediate relaxation of depolarized rat colon tonus

Sugasawa, Toshinari; Matsuzaki-Fujita, Masago; Guillaume, Jean-Luc; ΑU Camoin, Luc; Morooka, Shigeaki; Strosperg, A. Donny

Institut Cochin de Genetique Molaculaire, CNRS-UPR 0415 and Universite Paris VII, Paris, 75014, Fr.

Journal of Biological Chemistry (1997), 272(34), 21244-21252 CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

Studies under blockade of .alpha.-, .beta.\ifu-, and .beta.2-adrenoreceptors AB revealed a good correlation between the responses of rat colon relaxation of depolarized tonus and of rat adipocyte limolysis elicited by catecholamines or BRL-37344, a selective .beta. 3-adrenoreceptor agonist, suggesting .beta.3-adrenoreceptor stimulation. In contrast, SM-11044, a nonselective .beta.-adrenoreceptor agonist, stimulated colon relaxation more efficiently than lipolysis; its effects were differently antagonized by cyanopindolol with pA2 values of 8.31 in colon and of 7.32 in adipocytes. Binding studies in rat colon smooth muscle membranes using [125I]iodocyanopindolol under blockade of adrenaline and serotonin receptors revealed the existence of a single class of sites (Kd = 11.0 nM, Bmax = 716.7 fmol/mg protein). The specific binding was saturable and reversible and was displaced by SM-11044 but not by BRL-37344, isoproterenol, noradrenaline, adrenaline, serotonin, nor dopamine. This binding site was photoaffinity labeled using [125I]iodocyanopindololdiazirine. The labeling was prevented by SM-11044 but not by BRL-37344. The amino-terminal amino acid sequences of the high performance liq. chromatog.-purified peptides generated by enzymic and chem. cleavages of the affinity labeled 34-kDa protein confirmed that the novel iodocyanopindolol or SM-11044 binding protein of rat colon smooth muscle membranes is different from known adrenaline, serotonin, or dopamine receptors. Its functional role might include the relaxation of depolarized colon.

121524-09-2, SR 58611A ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (adrenoreceptor agonist effects on colon smooth muscle relaxation and white adipocyte lipolysis and characterization of iodocyanopindololbinding protein which mediates adrenoreceptor-independent relaxation in colon smooth muscle)

L99 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2002 ACS ΑN 1997:475527 HCAPLUS

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DN
     127:214919
ΤI
     The .beta.3-adrenoceptor agonist SR58611A inhibits gastric acid
     secretion in the conscious cat
     Coruzzi, Gabriella; Bertaccini, G.
ΑU
CS
     Institute of Pharmacology, University of Parma, Parma, I-43100, Italy
SO
     Naunyn-Schmiedeberg's Archives of Pharmacology (1997), 356(2),
     263-265
     CODEN: NSAPCC; ISSN: 0028-1298
PB
     Springer
DΤ
     Journal
LA
     English
AB
     The effect of the .beta.3-adrenoceptor agonist [N-((2S)-7-
     ethoxycarbonylmethoxyl-1,2,3,4-tetrahydronaphth-2-yl) (2R)-2-(3-
     chlorophenyl)-2-hydroxyethanamine hydrochloride] (SR58611A) on
     gastric acid secretion was investigated in conscious cats with a gastric
     fistula. The i.v. infusion of SR586114 (0.3-3 .mu.mol/kg/h) caused a dose-dependent inhibition of the acid secretion stimulated by
     2-deoxy-D-glucose (2DG), with a max. redn. by 45%. The secretory effect of the histamine H2-receptor agonist maprit only tended to be reduced by
     SR58611A (3 .mu.mol/kg/h). The inhib/itory effect of
     SR58611A was not modified by the non/selective .beta.1- and
     .beta.2-adrenoceptor antagonist progranolol (1.5 .mu.mol/kg i.v.), but it
     was prevented by bupranolol (10 mu. mol/kg i.v.), a drug endowed with
     .beta.3-antagonistic properties. Both antagonists blocked the inhibitory
     effect of the .beta.2-adrenoceptor agonist clenbuterol (0.1.mu.mol/kg/h)
     on 2DG-induced acid secretion. These findings suggest that compd.
     SR58611A inhibits gastric acid setretton in the conscious cat
     through activation of .beta.3-adrenoceptors insensitive to propranolol.
ΙT
     121524-09-2, SR58611A
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
         (.beta.3-adrenoceptor agonist SR58611A inhibition of gastric
        acid secretion in conscious cat, and comparison with
        .beta.2-adrenoceptor agonist clenbuterol)
L99
     ANSWER 11 OF 49 HCAPLUS COPYRIGHT 2002 ACS
     1997:433633 HCAPLUS
AN
DN
     127:55894
ΤI
     Stable freeze-dried pharmaceutical formulation containing mannitol and
     Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe
ΙN
PA
     Sanofi, Fr.; Bouloumie, Colette; Breul, Thierry; Colliere, Laurence;
     Faure, Philippe
SO
     PCT Int. Appl., 43 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                              19970515
                                             WO 1996-FR1706
PΙ
     WO 9717064
                        A1
                                                                19961030 <--
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
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              LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
              AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
              IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
              MR, NE, SN, TD, TG
                             19970509
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                        Α1
     FR 2740686
                        В1
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     CA 2234140
                              19970515
                                             CA 1996-2234140 ·19961030 <--
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AΑ

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AU 9674990
                              19970529
                         Α1
                                               AU 1996-74990
                                                                  19961030 <--
     AU 713383
                         В2
                               19991202
     EP 858325
                                               EP 1996-937367
                         Α1
                               19980819
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                         В1
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         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI
     CN 1203527
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                              19981230
                                               CN 1996-198786
                                                                  19961030 <--
     BR 9611367
                         Α
                              19990223
                                               BR 1996-11367
                                                                  19961030 <--
     JP 11507945
                                               JP 1996-517912
                         T2
                              19990713
                                                                  19961030 <--
     CZ 287178
                                               CZ 1998-1231
                         В6
                              20001011
                                                                  19961030 <--
     IL 124214
                         Α1
                              20010128
                                               IL 1996-124214
                                                                  19961030 <--
     RU 2163801
                                               RU 1998-110638
                         C2
                              20010310
                                                                  19961030 <--
     AT 221374
                         E
                              20020815
                                               AT 1996-937367
                                                                  19961030 <--
     ZA 9609176
                                               ZA 1996-9176
                         Α
                              19980430
                                                                  19961031 <--
                                               TW 1996-85114410 19961122 <--
     TW 442295
                         В
                              20010623
     NO 9801967
                         Α
                              19980630
                                               NO 1998-£1967
                                                                  19980430 <--
                                               US 1998/66387
     US 6284277
                         В1
                              20010904
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PRAI FR 1995-13022
                         Α
                               19951103
                                         <--
     WO 1996-FR1706
                        W
                              19961030 <--
     A pharmaceutically acceptable frèeze-dried formulation consisting of an
ΑB
     amorphous phase and a cryst. phase and including at least one non-protein
     active principle is disclosed. The formulation is characterized in that
     it contains mannitol and alanine in a ratio R of 0.1-1, where R is the wt.
     of mannitol over the wt. of alanine. A free-dried pharmaceutical contained SR 57746A 0.44, alanine 72.0, mannitol 36.0, citric acid 30.8,
     and Polysorbate-80 4.0 mg.
IT
     121524-08-1
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (stable freeze-dried pharmaceuti/cal formulation contg. mannitol and
        alanine)
L99
    ANSWER 12 OF 49 HCAPLUS COPYRIGHT 2002 ACS
     1997:349486 HCAPLUS
AN
DN
     127:61038
TI
     Carboxyl-promoted enhancement of selectivity for the .beta.3 adrenergic
     receptor. Selectivity is enhanced at the level of receptor binding
     Sher, Philip M.; Fisher, Liesl G.; Skwish, Stephen; Michel, Inge M.; Seiler, Steven M.; Washburn, William N.; Dickinson, Kenneth E. J.
AU
CS
     Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ,
     08543-4000, USA
SO
     Medicinal Chemistry Research (1997), 7(2), 109-115
     CODEN: MCREEB; ISSN: 10\( \)\( 4-2523 \)
PB
     Birkhaeuser
DT
     Journal
LA
     English
     Four carboxyl-contg., selectixe .beta.3 adrenergic agonists and their
AB
     ester or amide derivs. were evaluated for their ability to bind to human .beta.1, .beta.2, and .beta.3 adrenergic receptors. Stimulatory effects
     on the .beta.3 adrenergic receptor were also measured. The authors
     conclude that carboxyl-derived .beta 3 functional selectivity likely
     results, at least in part, from the exfect of the carboxyl on binding
     selectivity.
     121524-09-2, SR 58611A 191533-25-2,
     SR 58878
     RL: BAC (Biological activity or effector, except adverse); BPR
     (Biological process); BSU (Biological study, unclassified); PRP
     (Properties); BIOL (Biological study); PROC (Process)
         (carboxyl-promoted enhancement of selectivity for .beta.3 adrenergic
        receptor)
L99
     ANSWER 13 OF 49 HCAPLUS COPYRIGHT 2002 ACS
AN
     1997:93789 HCAPLUS
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DN

126:99317

TI

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Use of beta3-adrenergic agonists for inducing the release of
     glucagon-like-peptide
IN
     Bouloux, Cyril Jacques; Manara, Luciano; Bloom, Stephen Robert
PA
     Sanofi, Fr.
SO
     Fr. Demande, 9 pp.
     CODEN: FRXXBL
DT
     Patent
LA
     French
FAN.CNT 1
                  KIND DATE
     PATENT NO.
                                              APPLICATION NO. DATE
                             _____
                                              -----
     FR 2732894 A1
                              19961018
PΙ
                                              FR 1995-4448
                                                                 19950413 <--
FR 2732894 B1 19970704
FR 2734482 A1 19961129
FR 2734482 B1 19970814
BE 1009698 A3 19970701
IT 1298492 B1 20000110
PRAI FR 1995-4448 A 19950413 <--
FR 1995-12694 A 19951027 <--
AB Beta 3 adrepercic 3 conjects are constituted.
                                              ∕FR 1995-12694
                                                                 19951027 <--
                                              BE 1996-294
                                                                 19960409 <--
                                              IT 1996-TO284
                                                                19960412 <--
     Beta3 adrenergic agonists are useful for inducing the release of
AΒ
     glugagon-like-peptide. These agonists are administered at 0.01-30 mg/kg
     body wt. in different dosage forms (no data).
     107758-23-6 107758-43-0 121524-08-1 160696-89-9 185953-96-2
ΙT
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
         (beta3-adrenergic agonists for inducing release of glucagon-like-
        peptide)
L99 ANSWER 14 OF 49 HCAPLUS COPYRIGHT 2002 ACS
     1996:758896 HCAPLUS
ΑN
DN
     126:18641
     Preparation of novel aryloxypropanolamino(phenyl)propanol compounds as
TI
     intestinal motility modulating agents
IN
     Ohno, Norio; Hiratsuka, Kozo; Takenawa, Noriko
PΑ
     Tokyo Tanabe Company Limited, Japan
SO
     PCT Int. Appl., 34 pp.
     CODEN: PIXXD2
DΤ
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                              APPLICATION NO.
     _____
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                                              _____
                                                                 _____
     WO 9632369
                              19961017
PΙ
                      A1
                                              WO 1996-JP1024
                                                                 19960412 <--
         W: AU, CA, JP, KR, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     AU 9652894
                      A1 19961030
                                              AU 1996-52894 19960412 <--
PRAI JP 1995-89706
                              19950414
                                        <--
     WO 1996-JP1024
                              19960412 <--
OS
     MARPAT 126:18641
GΙ
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$$X \xrightarrow{E} O \xrightarrow{\star} H \xrightarrow{N} \star Z^{2}$$

The title compds. [I; A = CH, N; E = CH:CH, S; X, Y = H, halo, C1-4 alkoxy (un) substituted C1-4 alkoxy, C1-4 alkyl of alkenyl) or X and Y combine to form CH:CH2CH:CH, NHCH:CH; Z1, Z2 = H, halo, (un) substituted C1-4 alkoxy] and salts thereof are prepd. I are useful as active ingredients for controlling intestinal movements. Thus, Et (S)-4-(2-amino-3-hydroxy) propylphenoxyacetate hydrochloride (prepn. given) was refluxed with (2S)-glycidyl Ph ether in 1N caustic soda-EtOH to give 59% Et (S,S)-4-[2-[(3-phenoxy-2-hydroxy) propyl] amino-3-hydroxy] propylphenoxyacetate (II). II in vitro showed EC50 of 28 nM for suppressing rat intestinal movements vs. 14 nM of ref. compd. SR58611A.

Ι

IT 121524-09-2P, SR58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel aryloxypropanolamino(phenyl)propanol compds. as intestinal motility modulating agents)

- L99 ANSWER 15 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1996:530176 HCAPLUS
- DN 125:186459
- TI Differences between the third cardiac .beta.-adrenoceptor and the colonic .beta.3-adrenoceptor in the rat
- AU Kaumann, Alberto J.; Molenaar, Peter
- CS Dep. Pharmacol., Univ. Melbourne, Victoria, 3052, Australia
- SO British Journal of Pharmacology (1996), 118(8), 2085-2098 CODEN: BJPCBM; ISSN: 0007-1188
- PB Stockton
- DT Journal
- LA English
- AB The heart of several species including man contains atypical .beta.-adrenoceptors, in addn. to coexisting .beta.1- and .beta.2-adrenoceptors. We now asked the question whether or not the third cardiac .beta.-adrenoceptor is identical to the putative .beta.3-adrenoceptor. We compared the properties of the third cardiac .beta.-adrenoceptor with those of .beta.3-adrenoceptors in isolated tissues of the rat. To study the third cardiac .beta.-adrenoceptor we used spontaneously beating right atria, paced left atria and paced left ventricular papillary muscles. As a likely model for putative .beta.3-adrenoceptors we studied atypical .beta.-adrenoceptors of the colonic longitudinal muscle precontracted with 30 mM KCl. We used .beta.3-adrenoceptor-selective agonists, antagonists and non-conventional partial agonists (i.e., high-affinity blockers of both .beta.1- and B2-adrenoceptors known to exert also stimulant effects through .beta.3-adrenoceptors). The non-conventional partial agonist (-)-CGP 12177 caused pos. chronotropic effects in right atria (pD2 = 7.3) and pos. inotropic effects in left atria (pD2 = 7.5). The stimulant effects of (-)-CGP 12177 were resistant to blockade by 200 nM-2 .mu.M (-)-propranolol

and 3 .mu.M ICI 118551 (a .beta.2-selective antagonist) but antagonized by 1 .mu.M (-)-bupranolol (pKB = 6.4-6.8), 3 .mu.M CGP 20712A (a .beta.1-selective antagonist) (pKB = 6.3-6.4) and 6.6 .mu.M SR 59230A (a .beta.3-selective antagonist, pKB = 5.1-5.4). The non-conventional partial agonist cyanopindolol caused pos. chronotropic effects in right atria (pK2 = 7,7) and pos. inotropic effects in left atria (pD2 = 7.1). The stimulant effects of cyanopindolol were resistant to blockade by 200 nM (-)-propranolol but antagonized by 1 .mu.M (-)-bupranolol (pKB = 6.8-7.1). Neither (-)-CGP 12177 nor cyanopindolol caused stimulant effects in papillary muscles at concns. between 0.2 nM and 20 .mu.M. In the presence of 200 nM (-)-propranolol, the .beta.3-adrenoceptor-selective agonists BRL 37344 (6 .mu.M), SR 58611A (6 .mu.M), ZD 2079 (60 .mu.M) and CL 31643 (60 .mu.M) did not cause stimulant effects or modify the potency and efficacy of the effects of (-)-CGP 12177 in right and left atria. The combination of 2 .mu.M (-)-propranolol and 2 .mu.M (-)-noradrenaline did not modify the chronotropic potency and efficacy of (-)-CGP 12177 compared to the potency and efficacy in the presence of 2 .mu.M (-)-propranolol alone. (-)-CGP 12177 relaxed the colon with a pD2 of 6.9 and max. effect of 55% compared to (-)-isoprenaline. The relaxant effects of (-)-CGP 12177 were resistant to blockade by 200 nM (-)-propranolol, 3 .mu.M CGP 20712A, 3 .mu.M ICI 118551 but blocked by 2 .mu.M (-)-propranolol (pKB = 6.0), 1 .mu.M (-)-bupranolol (pKB = 6.4) and 3 .mu.m SR 59230A (pKB = 6.3). In the presence of 200 nM (-)-propranolol, (-)-CGP 12177 (20 .mu.M) antagonized surmountably the relaxant effects of BRL 37344 (pKp = 7.3), (-)-noradrenaline (pKp = 7.0), and CL 316243 (pKp = 7.0). Cyanopindolol in the presence of 200 nM (-)-propranolol relaxed the colon with a pD2 of 7.0 and a max. effect of 40% compared to (-)-isoprenaline. As expected from a partial agonist, cyanopindolol antagonized the relaxant effects of both BRL 37344 and CL 316243 with a pKp = 7.6 and (-)-noradrenaline with a pKp = 7.4. The following .beta.3-adrenoceptor-selective agonists were potent colonic relaxants (pD2 values between parentheses): BRL 37344 (9.1), ZD 2079 (7.0), CL 316243 (9.0) and SR 58611A (8.2). The relaxant effects of these agonists were only marginally affected by 200 nM (-)-propranolol, not blocked by 3 .mu.M CGP 20712A or 3 .mu.M ICI 118551, and blocked by SR 59230A 3 .mu.M (pKB = 6.9-7.5), 1 .mu.M (-)-bupranolol (pKB = 6.2-6.4) and 2 .mu.M (-)-propranolol (pKB = 6.3-6.5). The colonic relaxation caused by the nanomolar concns. of the .beta.3-adrenoceptor-selective agonists and the non-conventional partial agonists (-)-CGP 12177 and cyanopindolol and their relative resistance to blockade by antagonists with high affinity for .beta.1- and .beta.2-adrenoceptors but blockade by the .beta.3-adrenoceptor selective SR 59230A agree with the hypothesis that the receptors involved are .beta.3-adrenoceptors. The failure of micromolar concns. of .beta.3-adrenoceptor-selective agonists to produce cardiac stimulation or affect the cardiostimulant effects of (-)-CGP 12177 is inconsistent with the hypothesis that the third cardiac .beta.-adrenocaptor is .beta.3. Addnl., the selective blockade of the colonic putative beta.3-adrenoceptor compared to the third cardiac .beta.-adrenoceptor by SR 59230A, as well as the blockade of cardiac but not colonic receptors by CGP 20712A is also inconsistent with an identical putative .beta.3-adrenoceptor in colon and heart. We conclude that in the rat the third cardiac .beta.-adrenoceptor is different from the colonic .beta.3-adrenoceptor. 121524-09-2, SR 58611A

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); BIOL (Biological study)

(pharmacol. characterization indicates that rat third cardiac

.beta.-adrenoceptor is different than colonic .beta.3-adrenoceptor)

L99 ANSWER 16 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:454656 HCAPLUS

DN 125:133456

TI Functional .beta.3-adrenoceptor in the human heart

- AU Gauthier, Chantal; Tavernier, Genevieve; Charpentier, Flavien; Langin, Dominique; Le Marec, Herve
- CS Fac. Sci. Techniques, Univ. Nantes, Nantes, 44035, Fr.
- SO Journal of Clinical Investigation (1996), 98(2), 556-562 CODEN: JCINAO; ISSN: 0021-9738
- PB Rockefeller University Press
- DT Journal
- LA English
- AB .beta.3-Adrenoceptors are involved in metab., gut relaxation, and vascular vasodilation. However, their existence and role in the human heart have not been documented. We investigated the effects of several .beta.-adrenoceptor agonists and antagonists on the mech. properties of ventricular endomyocardial biopsies. In the presence of nadolol, a .beta.1 and .beta.2-adrenoceptor antagonist, isoprenaline produced consistent neg. inotropic effects. Similar neg. inotropic effects also resulted from the action of .beta.3-adrenoceptor agonists with an order of potency: BRL 37344 > SR 58611 .apprxeq. CL 316243 > CGP 12177. The dose-response curve to BRL 37344-decreasing myocardial contractility was not modified by pretreatment with nadolol, but was shifted to the right by bupranovol, a nonselective .beta.-adrenoceptor antagonist. .beta.3-Adrenoceptor agonists also induced a redn. in the amplitude and an acceleration in the repolarization phase of the human action potential. .beta.3-Adrenoceptor transcripts were detected in human ventricle by a polymerase chain reaction assay. These results indicate that: (a) .beta.3-adrenoceptors are present and functional in the human heart; and (b) these receptors are responsible for the unexpected neg. inotropic effects of catecholamines and may be involved in pathophysiol. mechanisms leading to heart #ailure.
- IT 121524-08-1, SR 58611

 RL: BAC (Biological activity or effector, except adverse); BSU

 (Biological study, unclassified); BLOL (Biological study)

 (.beta.3-adrenoceptor agonist neg. inotropic activity in human heart)
- L99 ANSWER 17 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1996:343723 HCAPLUS
- DN 125:75996
- TI Effects of several putative .beta.3-adrenoceptor agonists on lipolysis in human omental adipocytes
- AU Hoffstedt, J.; Loennqvist, F.; Shimizu, M.; Blaak, E.; Arner, P.
- CS Department of Medicine, Huddinge University Hospital, Huddinge, S-14186, Swed.
- SO International Journal of Obesity (1996), 20(5), 428-434 CODEN: IJOBDP; ISSN: 0307-0565
- PB Stockton
- DT Journal
- LA English
- AB Atypical .beta.3-adrenoceptor agonists have attained an increasing interest as potential drugs against obesity and diabetes. However, their pharmacol. actions on the native, human .beta.3-adrenoceptor are not well defined. In the present study, the lipolytic effects of several putative .beta.3-adrenoceptor agonists were investigated in human omental adipocytes. CL 316 243 and CGP 12177 had selective partial .beta.3-agonist effects (pD2 about 4 and 8, resp.); the latter drug is a .beta.1-/.beta.2-adrenoceptor blocker in addn. to its .beta.3-adrenoceptor agonist activity. BRL 37344 and SM 11044 were also partial agonists, but with significant .beta.1 - and/or .beta.2-adrenoceptor agonist properties. Bucindolol, ZD 2079, ICI D7114 and SR 58611A were ineffective as lipolytic drugs. In addn., ICI D7114 was a non-selective .beta.1-/.beta.2-/.beta.3-adrenoceptor antagonist in human adipocytes. None of the .beta.3-adrenoceptor agonists tested is an ideal drug for therapeutic use in man (i.e. regarded as a selective and full agonist with high receptor potency). Only CL 316 243 may have a potential therapeutic role, although the potency is very low. CGP 12177 is useful as a ref.

substance for human in vitro studies.

121524-09-2, SR 58611A ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(putative .beta.3-adrenoceptor agonists effect on lipolysis in human omental adipocytes in relation to obesity treatment)

- L99 ANSWER 18 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1996:94531 HCAPLUS
- DN 124:219871
- TΙ Functional identification of rat atypical .beta.-adrenoceptors by the first .beta.3-selective antagonists, aryloxypropanolaminotetralins
- ΑIJ Manara, Luciano; Badone, Domenico; Baroni, Marco; Boccardi, Giovanni; Cecchi, Roberto; Croci, Tiziano; Giudice, Antonina; Guzzi, Umberto; Landi, Marco; et al.
- CS Research Centre Sanofi Midy, Milan, 20137, Italy
- SO British Journal of Pharmacology (1996), 117(3), 435-42 CODEN: BJPCBM; ISSN: 0007-1188
- PB Stockton
- DT Journal
- LA English
- AΒ We have assessed the relative abilities of compds. belonging to the new aryloxypropanolaminotetralin (APAT) class and of the ref. .beta.-adrenoceptor-blocking agent, alprenolol, to antagonize functional responses in vitro and in vivo involving atypical (.beta.3) or conventional (.beta.1 and .beta.2) .beta.-adrenoceptors. The range of pA2 values for three representative APATs against inhibition of spontaneous motility in the rat isolated colon by the selective .beta.3-adrenoceptor agonist, SR 58611A (8.1-8.8), was well above similarly calcd. values for non-competitive antagonism of guinea-pig trachea relaxation by salbutamol (.beta.2, 6.5-6.9) and the atrial chronotropic response by isoprenaline (.beta.1, 6.7-7.3). Alprenolol, however, was substantially more potent in antagonizing atrial (pA2, 8.2) and tracheal (pA2, 8.9) responses than SR 58611A mediated inhibition of colonic motility (pA2, 6.8). Several APAT isomers with different configurations at the chiral carbons, when tested on isolated organs, presented stringent stereochem. requirements for .beta.3-selectivity, including high antagonist potency-ratios between active and inactive enantiomers. In vivo, the inhibition of colonic motility and the thermogenic response of brown adipose tissue elicited in rats by the selective .beta.3-adrenoceptor agonists SR 58611A and BRL 37344 resp. were substantially diminished by the representative APAT, SR 59230A, at oral doses (.ltoreq.5 mg kg-1) well below those half maximally effective (ID50) for preventing .beta.1-(isoprenaline tachycardia .gtoreq.80 mg kg-1) or .beta.2-(salbutamol bronchodilatation, 44 mg kg-1) mediated responses. Alprenolol, as expected, was a less potent and nonselective antagonist of the putative .beta.3-responses. These findings support APATs as the first potent, orally effective selective antagonists at .beta.3-adrenoceptors, and provide final unambiguous evidence that .beta.3-adrenoceptors underlie inhibition of colonic motility and brown adipose tissue thermogenesis in rats.
- ANSWER 19 OF 49 HCAPLUS COPYRIGHT 2002 ACS L99
- 1996:76125 HCAPLUS ΑN
- DN 124:220194
- ΤI Functional studies of the first selective .beta.3-adrenergic receptor antagonist SR 59230A in rat brown adipocytes
- ΑU Nisoli, Enzo; Tonello, Cristina; Landi, Marco; Carruba, Michele O.
- CS Sch. Med., Milan Univ., Milan, 20129, Italy
- SO Molecular Pharmacology (1996), 49(1), 7-14 CODEN: MOPMA3; ISSN: 0026-895X

PB Williams & Wilkins

DT Journal

LA English

The SS-enantiomer 3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaphth-1-AΒ ylaminol]-(2S)-2-propanol oxalate (SR 59230A) is proposed to be the first .beta.3-adrenergic receptor antagonist. The present work shows that SR 59230A, unlike its inactive RR-enantiomer (SR 59483), antagonized a typical B3-adrenergic response in vitro, i.e., SR 58611A , the ethyl-[(7s)-7-[[(2R)-2-(3-chlorophenyl)-2-hydroxethyl]amino]-5,6,7,8tetrahydronaphth-2-yl]oxyacetate hydrochloride- or (-)-4-(3-t-butylamino-2hydroxypropoxy)benzimidazol-2-one (CGP 12177)-stimulated synthesis of cAMP in rat brown adipose tissue membranes, with pKB values of 8.87 and 8.20. In addn., SR 59230A had no antagonistic effect on forskolin-induced cAMP accumulation in rat interscapular brown adipose tissue. SR 59230A, in contrast to the selective .beta.1- and .beta.2-adrenoceptor antagonists (.+-.) [2-(3-carbamoyl-4-hydroxyphenoxy)-ethylamino]-3-[4(1-methyl-4trifluoromethyl-2-imidazolyl)-phenoxy]-2 propanol and erythro-(.+-.)-1-(7methylindan-4-yloxy)-3-isopropylaminobutan-2-ol-hydrochloride did not counteract the cAMP prodn. induced by (-)-isoprenaline or norepinephrine (NE) in rat brain areas rich in .beta.1- or .beta.2-adrenoceptors, such as frontal cortex and cerebellum. Moreover, in proliferating brown fat cells, in which the .beta.1-adrenoceptor is the only .beta.-adrenergic subtype coupled to cAMP prodn., SR 592301A did not modify the prodn. of cAMP induced by NE, whereas CGP 12177 did. In confluent brown fat cells, in which the .beta.3-adrenoceptor is the functional .beta.-adrenergic subtype coupled to adenylyl cyclase, SR 592301A antagonized the NE-induced cAMP accumulation and glycerol release without affecting their basal values, whereas CGP 12177, which per se stimulated cAMP accumulation and glycerol release, did not change the NE-induced increase of either parameter. Finally, SR 59230A concn.-dependently counteracted the NE-stimulated synthesis of uncoupling protein gene in confluent brown fat cells, which is considered mainly a result of selective stimulation of .beta.3-adrenoceptors. These results provide evidence that the new selective .beta.3-adrenoceptor antagonist can contribute considerably to functional characterization of the .beta.3-adrenoceptors.

L99 ANSWER 20 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:905893 HCAPLUS

DN 124:45714

TI Prophylactics or therapeutics containing .beta.3-adrenergic agonists for pancreatitis, circulation disorders, or diabetic complications

IN Yoshino, Takako; Yamaguchi, Isamu; Kodama, Hiroshi

PA Fujisawa Pharmaceutical Co, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 07228543 A2 19950829 JP 1994-19431 19940216 <--

Ι

OS MARPAT 124:45714

GI

PΙ

- The prophylactic and/or therapeutic agents for pancreatitis, disorders caused from disturbance of circulation, or diabetic complications contain .beta.3-adrenergic agonists as active ingredients. The .beta.3-adrenergic agonists may be bis(phenethyl)amines I (R1 = halo; R2 = lower alkyl and R3 = H or R2R3 = lower alkylene; R4 = lower alkoxy substituted with carboxy which may be esterified and R5 = H or R4R5 = lower alkylenedioxy substituted with carboxy which may be esterified) or their pharmaceutically acceptable salts. (R*,R*)-(.+-.)-[4-[2-[2-(3-chlorophenyl)-2-hydroxyethylamino]propyl]phenoxy]acetic acid Me ester hydrobromide (II) dose-dependently reduced mortality of mice with acute pancreatitis induced by feeding with CDE (choline-deficient ethionine-added) diet at ED50 value 1.0 mg/kg. Capsules contg. II were also formulated.
- IT 121524-09-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prophylactic and therapeutic agents contg. .beta.3-adrenergic agonists for pancreatitis, circulation disorders, and diabetic complications)

- L99 ANSWER 21 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1995:821445 HCAPLUS
- DN 123:247372
- TI Differential relevance of .beta.-adrenoceptor subtypes in modulating the rat brown adipocytes function
- AU Nisoli, E.; Tonello, C.; Carruba, M. O.
- CS School of Medicine, University Milan, Milan, I-20129, Italy
- SO Archives Internationales de Pharmacodynamie et de Therapie (1995), 329(3), 436-53 CODEN: AIPTAK; ISSN: 0003-9780
 - Heymans Institute of Pharmacology
- DT Journal

PB

- LA English
- The potencies and intrinsic activities on cAMP accumulation and lipolysis of various selective .beta.3-adrenoceptor agonists were studied in brown adipocytes and compared to those of the nonselective, (-)-isoprenaline, and conventional .beta.1- (dobutamine) and .beta.2-adrenoceptor (salbutamol) agonists. (-)-Isoprenaline, dobutamine and salbutamol were more potent stimulants of lipolysis than of cAMP accumulation, while the selective .beta.3-adrenoceptor agonists had similar potencies for these two functions. Apparent pA2 values of the selective .beta.1- (CGP 20712A) and .beta.2-adrenoceptor (ICI 118551) antagonists for inhibition of adenylyl cyclase stimulation by (-)-isoprenaline and the .beta.3-adrenoceptor agonists, BRL 37344, SR 58611A, and ICI 215001, indicated that (-)-isoprenaline can stimulate the enzyme through a relevant .beta.1-adrenergic component, while the other drugs activate the enzyme mainly by acting on the .beta.3-adrenoceptors. On the contrary, antagonism of the lipolysis yielded apparent pA2 values for CGP 20712A and ICI 118551, suggesting that (-)-isoprenaline, like all the .beta.3-adrenoceptor agonists, stimulated the brown adipose tissue lipid metab. mainly through an action on .beta.3-adrenoceptors.
- IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (.beta.-adrenoceptor subtypes role in cAMP accumulation and glycerol release by rat brown adipocytes)

- L99 ANSWER 22 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1995:817700 HCAPLUS
- DN 123:275737
- TI Rat frontal cortex .beta.1-adrenoceptors are activated by the .beta.3-adrenoceptor agonists SR 58611A and SR 58878A but not by BRL 37344 or ICI 215,001

- ΑU Nisoli, Enzo; Tonello, Cristina; Benarese, Marina; Carruba, Michele O.
- CS School Medicine, Univ. Milan, Milan, Italy
- Journal of Neurochemistry (1995), 65(4), 1580-7 CODEN: JONRA9; ISSN: 0022-3042 SO
- PΒ Lippincott-Raven
- DΤ Journal
- LA English
- AΒ SR 58611A, a selective agonist of gut and brown adipose tissue .beta.3-adrenoceptors (.beta.3ARs), has been reported to have antidepressant-like activity in rodents, indicating brain .beta.3ARs as the sites of this property. SR 58611A and its acid metabolite SR 58878A, as opposed to BRL 37344, ICI 215,001, and CGP 12177, increased cAMP levels in rat frontal cortex. ICI 215,001, differently from BRL 37344, at concns. in the millimolar range, partially antagonized norepinephrine- or (-)-isoproterenol-stimulated adenylyl cyclase. The increase of cAMP levels induced by SR 58878A was blocked selectively by the .beta.1AR antagonist CGP 20712A but not by the .beta.2AR antagonist ICI 118,551. In addn., PCR anal. did not reveal .beta.3AR mRNA, and no specific .beta.3AR binding sites were detected by [3H]CGP 12177 in rat frontal cortex. When down-regulation of the .beta.1AR ligand binding and mRNA levels had been induced in the frontal cortex by chronic administration of imipramine, SR 58878A as well as norepinephrine and (-)-isoproterenol increased the cAMP prodn. less markedly. The findings indicate that .beta.3ARs are absent in the adult rat frontal cortex, and that various .beta.3AR agonists differently affect the frontal cortex .beta.1ARs, indicating that SR 58611A may exert its putative antidepressant effect by acting on the frontal cortex .beta.1ARs. IT
 - 121524-09-2, SR 58611A 160696-89-9,

SR 58878A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (brain frontal cortex .beta.l-adrenergic receptors activated by)

- ANSWER 23 OF 49 HCAPLUS COPYRIGHT 2002 ACS L99
- AN 1995:794026 HCAPLUS
- DN 123:246542
- Selective activation of brown adipocyte hormone-sensitive lipase and cAMP ΤI production in the mouse by .beta.3-adrenoceptor agonists
- Shih, Mei-Fen; Taberner, Peter V. AU
- Sch. Med. Sci., Univ. Bristol, Bristol, BS8 1TD, UK CS
- SO Biochemical Pharmacology (1995), 50(5), 601-8 CODEN: BCPCA6; ISSN: 0006-2952
- PΒ Elsevier
- DT Journal
- LA English
- Acute injection of either noradrenaline or isoprenaline in mice activated AB both brown (BAT) and white (WAT) adipose tissue hormone-sensitive lipase activity (HSL). Dose-response studies indicated that isoprenaline (0.05-0.15 mg/kg) produced a dose-dependent activation of HSL in both BAT and WAT, whereas ${\tt SR}$ 58611A produced no change in HSL in WAT over a dose range (105 mg/kg) which, at the same time, dose-dependently increased HSL activity in BAT. The other .beta.3-adrenoceptor agonists, ZD 7114 (10 mg/kg) and BRL 35135 A (5 mg/kg) also selectively increased HSL activity in BAT, these doses having previously been shown to stimulate lipogenesis in vivo. Higher doses of ZD 7114 and BRL 35135 produced no further increase in HSL activity and, in the case of BRL 35135, provoked symptoms of non-selective .beta.-adrenoceptor activation. The increase in HSL activity could be prevented by pretreating the mice with propranolol, 10 mg/kg, i.p., 30 min prior to the agonist. The activation of HSL activity by the .beta.3-adrenoceptor agonists was assocd. with an increase in tissue cAMP prodn. which was also prevented by pretreatment with propranolol. The

degree of cAMP accumulation was least with BRL 35135 and greatest with ZD

- 7114. The authors conclude that, in the mouse adipocyte, the atypical .beta.-adrenoceptor (.beta.3) is present in BAT, but is not present or functional in WAT.
- 121524-09-2, SR 58611A TΤ
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (selective activation of brown adipocyte hormone-sensitive lipase and cAMP prodn. in the mouse by .beta.3-adrenoceptor agonists)
- L99 ANSWER 24 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- 1995:614635 HCAPLUS AN
- DN 123:74228
- TI Predictive quantitative structure-activity relationships (QSAR) analysis of .beta.3-adrenergic ligands
- ΑU Blin, Nathalie; Federici, Christian; Koschielniak, Thiery; Strosberg, Donny
- Institut' Cochin Genetique Moleculaire, Universite Paris VII, Paris, 75014, CS Fr.
- SO Drug Design and Discovery (1995), 12(4), 297-311 CODEN: DDDIEV; ISSN: 1055-9612
- PB Harwood
- DT Journal
- LA English
- A novel quant. structure-activity relationships strategy was used to AB analyzed seventeen .beta.-adrenergic ligands for which we had previously evaluated pharmacol. properties in Chinese hamster ovary cells transfected with the human .beta.1-, .beta.2- or .beta.3-adrenergic gene (Blin et al., 1993, Mol. Pharmacol., 44: 1094-1104). These ligands were classified into pharmacol. activity categories in order to det. the extent to which mol. structural features may be involved in the selectivity of the interaction with the .beta.3-AR, or to define mol. features and properties characteristic of a .beta.3-AR high affinity ligand or of a potent .beta.3-adrenergic agonist. Topol. and physico-chem. mol. descriptors were obtained using a novel software combining calcns. with multivariate statistical methods, such as principal component anal. and discriminant anal. This study showed that .beta.1/.beta.2-antagonists .beta.3-agonists could be differentiate from .beta.1/.beta.2/.beta.3-agonists on the basis of their topol. mol. descriptors weighted by partial at. charge and lipophilicity logP values. Bulky lipophilic groups at the end of the alkylamine chain and an ethoxy function, extending the flexible portion of the mol. and modifying the electron d. distribution, were requirements for selective agonism at the .beta.3-site. Charge and logP weighted 2D-autocorrelation vectors were properties able to discriminate between classes of agonists to terms of their affinity, potency or intrinsic activity, thus emphasizing the part these mol. descriptors play in detg. .beta.3-adrenergic ligands. These results, in assocn. with the powerful activity-prediction model evaluated in the test, provide a framework to rationalize the synthesis of new .beta.3-AR specific compds.
- IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (QSAR anal. of .beta.3-adrenergic ligands)

- ANSWER 25 OF 49 HCAPLUS COPYRIGHT 2002 ACS L99
- 1995:494286 HCAPLUS AN
- DN 122:256840
- TIInhibitory effects of SR 58611A on canine colonic motility: evidence for a role of .beta.3-adrenoceptors
- ΑU de Ponti, Fabrizio; Cosentino, Marco; Costa, Angela; Girani, Marco; Gibelli, Graziano; d'Angelo, Luigi; Frigo, Gianmario; Crema, Antonio Dep. Internal Med. and Therapeutics, Univ. Pavia, Pavia, I-27100, Italy
- CS
- SO British Journal of Pharmacology (1995), 114(7), 1447-53

kim - 10 / 044531 CODEN: BJPCBM; ISSN: 0007-1188 PΒ Stockton DT Journal LA English To clarify whether atypical of .beta.3-adrenoceptors can modulate canine AΒ colonic motility in vivo, we studied the effects of SR 58611A (a selective agonist for atypical .beta.-adrenoceptors) alone and after pretreatment with .beta.-adrenoceptor antagonists on colonic motility in the conscious dog. The gastrocolonic response (postprandial increase in motility) was monitored by electrodes and strain-gauge force transducers chronically implanted along the distal colon. In some expts., heart rate was also measured. The possible role of .beta.3-adrenoceptors in mediating the effects of SR 58611A was also tested in vitro in circular muscle strips taken from the canine distal colon. I.v. infusion of SR 58611A, ritodrine or isoprenaline at doses inducing the same degree of tachycardia inhibited the gastrocolonic response to a different extent, with SR 58611A and ritodrine being more effective than isoprenaline. In a dose-response study, SR 58611A was more potent in inhibiting colonic motility than in inducing tachycardia: the ED35 values for inhibition of colonic motility and induction of tachycardia were 23 and 156 .mu.g kg-1, i.v., resp. The inhibitory effect of SR 58611A 100 .mu.g kg-1, i.v., on the gastrocolonic response was reversed by alprenolol (non-selective .beta.-adrenoceptor antagonist), but resistant to CGP 20712A (.beta.1-adrenoceptor antagonist) or ICI 118551 (.beta.2-adrenoceptor antagonist). In vitro, SR 58611A concn.-dependently relaxed circular muscle strips, an effect that was competitively antagonized by alprenolol with a pA2 values of 7.1, but resistant to CGP 20712A (100 nM), ICI 118551 (100 nM) or tetrodotoxin (1 .mu.m). The present study provides strong functional evidence for a role of atypical or .beta.3-adrenoceptors in the modulation of canine colonic motility both in vivo and in vitro by an inhibitory effect most likely at the smooth muscle level. 121524-09-2, SR 58611A RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (inhibitory effects of SR 58611A on canine colonic motility and evidence for a role of .beta.3-adrenoceptors) ANSWER 26 OF 49 HCAPLUS COPYRIGHT 2002 ACS L99 ΑN 1995:347146 HCAPLUS DN 122:132788 Preparation of (7S)-7-(1R)-2-(3-chlorophenyl)-2-hydroethylamino-5,6,7,8-ΤI tetrahydronaphtalen-2-yloxyacetic acid .beta.3-adrenergic agonist and pharmaceutical compositions containing it Baroni, Marco; Cecchi, Roberto; Croci, Tiziano IN PA Sanofi, Fr.; Midy S.P.A. Eur. Pat. Appl., 6 pp. SO CODEN: EPXXDW DT Patent LA French FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE

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PΙ
    EP 626367
                      A1
                           19941130
                                          EP 1994-401163
                                                           19940526 <--
                     ₿1
                           19970409
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
    EP 627407
                     A1
                           19941207
                                          EP 1993-401375
                                                         19930528 <--
        R: IT
PRAI EP 1993-401375
                           19930528 <--
GΙ
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AB The title compd., I [m.p. 215.degree., decompn.; [.alpha.]20 = -98.4.degree. (0.5% MeOH/HCl 1N)], and its pharmaceutically acceptable salts (e.g., the Na salt) is prepd. by the sapon. of the corresponding Et ester and is useful as a .beta.3-adrenergic receptor agonist for the treatment of diseases amenable to application of a .beta.3-adrenergic agonist [e.g., irritable colon (no data), obesity (no data), anxiety (no data), etc. (no data)].

Ι

IT 160696-89-9DP, salts 160853-47-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed; prepn. as .beta.3-adrenergic receptor agonist)

IT 160696-89-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. as .beta.3-adrenergic receptor agonist)

IT 121524-08-1

RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. of (7S)-7-(1R)-2-(3-chlorophenyl)-2-hydroethylamino-5,6,7,8-tetrahydronaphtalen-2-yloxyacetic acid .beta.3-adrenergic agonist and pharmaceutical compns. contg. it)

L99 ANSWER 27 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:331108 HCAPLUS

DN 122:105454

TI Preparation of (7S)-7-[[2(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphthalen-2-yloxy]acetic acid .beta.3-adrenergic receptor agonist

IN Baroni, Marco; Croci, Tiziano; Cecchi, Roberto

PA Miday s.p.a., Italy

SO Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 2

PAN.C	141 2			
	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI	EP 627407	A1 19941207	EP 1993-401375	19930528 <
	R: IT			
	EP 626367	A1 19941130	EP 1994-401163	19940526 <
	EP 626367	B1 19970409	•	
	R: AT, BE,	CH, DE, DK, ES,	FR, GB, GR, IE, IT, LI	, LU, NL, PT, SE
	AT 151405	E 19970415	AT 1994-401163	19940526 <
	ES 2103113	T3 19970816	ES 1994-401163	19940526 <
	JP 07070013	A2 19950314	JP 1994-117182	19940530 <
	US 5488151	A 19960130	US 1994-250830	19940531 <
PRAI	EP 1993-401375.	19930528	<	
GI				

AB The title compd., I, prepd. by the basic hydrolysis of the corresponding I Et ester, is prepd. and useful as a .beta.3-adrenergic receptor agonist (no data) for use as an antiobesity agent (no data), for the treatment of gastrointestinal problems due to the G.I. contraction of smooth muscle (no data), for the treatment of irritable colon (no data), etc. (no data).

Ι

IT 160696-89-9DP, salts 160696-89-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. as .beta.3-adrenergic receptor agonist)

IT 121524-08-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of .beta.3-adrenergic receptor agonist by hydrolysis of)

L99 ANSWER 28 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:215093 HCAPLUS

DN 122:741

TI .beta.3-Adrenoceptor agonists, BRL 37344 and SR 58611A , do not induce relaxation of human, sheep and guinea pig airway smooth muscle in vitro

AU Martin, C.A.E.; Naline, E.; Bakdach, H.; Advenier, C.

CS Laboratoire de Pharmacologie, Faculte de Medecine Paris-Ouest, Paris, F-75270, Fr.

SO European Respiratory Journal (1994), 7(9), 1610-15 CODEN: ERJOEI; ISSN: 0903-1936

DT Journal

LA English

The existence of atypical- or .beta.3-adrenoceptor's has now been generally AB accepted. These receptors have been shown to be abundant in adipose tissue and in a no. of gastrointestinal smooth muscle prepns. A recent study reported that .beta.3-adrenoceptor stimulation mediated relaxation of isolated canine bronchial smooth muscle. The aim of the present study was to extend this observation to other species. The authors investigated the in vitro responses of guinea-pig, human and sheep bronchial smooth muscle to isoprenaline, salbutamol (a selective .beta.2-adrenoceptor agonist), and BRL 37344 and SR 58611A (two presumably selective .beta.3-adrenoceptor agonists). The prepns. were precontracted to 60-70% of maximal tension with histamine 10-6 M for guinea-pig and human bronchi, or acetylcholine 10-6 M for sheep bronchi. In each species, SR 58611A produced a slight fall in tension of about 10% of the effects of the phylline (3 \mbox{mM}), but this decrease in tension was not significantly different from the spontaneous and weak relaxation obsd. with saline addn. during the same duration of the expt. These relaxations were not modified by either the nonselective .beta.-adrenoceptor antagonist propranolol or the selective .beta.2-adrenoceptor antagonist ICI 118,551. In contrast, BRL 37344 induced a significant concn.-dependent fall in tension induced by both spasmogens. Its relaxant effects were inhibited both by propranolol and ICI 118,551 in human and guinea-pig airways, whereas on the isolated sheep bronchus BRL 37344-induced relaxations were only slightly, albeit significantly, reduced with either of the .beta.-adrenoceptor antagonists

tested. Salbutamol and isoprenaline induced potent relaxations of guinea-pig, human and sheep airway smooth muscle in vitro, which were antagonized both by propranolol and ICI 118,551. The authors findings show that .beta.3-adrenoceptor stimulation does not induce relaxation in guinea-pig, human and sheep bronchial smooth muscle, and that a .beta.2-adrenoceptor agonistic component might be implicated in the relaxant effects of BRL 37344.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (.beta.3-adrenoceptor agonists BRL 37344 and SR 58611A do not induce relaxation of human, sheep, and guinea pig airway smooth muscle in vitro)

L99 ANSWER 29 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:63848 HCAPLUS

DN 122:80821

TI Synthesis of the potent and selective atypical .beta.-adrenergic agonist SR 59062 A $\,$

AU Badone, Domenico; Guzzi, Umberto

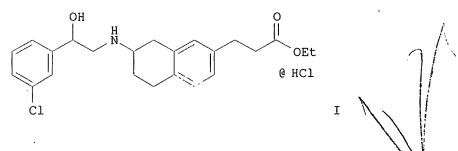
CS Res. Cent., Sanofi-Midy SpA, Milan, Italy

SO Bioorganic & Medicinal Chemistry Letters (1994), 16(4), 1921-4 CODEN: BMCLE8; ISSN: 0960-894X

DT Journal

LA English

GΙ



AB The search for synthesis and evaluation of a novel highly potent atypical .beta.-adrenergic agonist (.beta.3-agonist) are described. An example compd. is the SR 68611A analog 7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenepropanoate hydrochloride (I) (diastereomers).

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MSC (Miscellaneous); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (prepn. of SR 59062A (SR 58611A bioisostere))

L99 ANSWER 30 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:645501 HCAPLUS

DN 121:245501

TI Enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in the rat

AU Kuratani, Kazuyoshi; Kodama, Hiroshi; Yamaguchi, Isamu

CS Tsukuba Res. Labs., Fujisawa Pharm. Co. Ltd., Tsukuba, 300-26, Japan

SO Journal of Pharmacology and Experimental Therapeutics (1994), 270(2), 559-65 CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

AB Indomethacin (32 mg/kg s.c.) produced mainly antral ulcers in refed rats

but almost exclusively corpus erosions in fasted rats. S.c. doses of a nonselective beta (isoproterenol), a selective .beta.-2 (salbutamol) and selective .beta.-3 adrenergic agonists BRL 35135, CL 316243, SR 58611A, dose-dependently attenuated the antral ulcers, and their activities were in the order of BRL 35135 (ED50 = 0.03 mg/kg) > CL 316243 (ED50 = 0.04 mg/kg) > SR 68511A (ED50 = 0.2 mg/kg) > isoproterenol (ED50 = 0.4 mg/kg) > salbutamol (ED50 = 6 mg/kg). Whereas only isoproterenol, salbutamol and BRL35135 significantly attenuated the corpus erosions and reduced gastric acid secretion in pylorus-ligated rats. In in vitro, all the beta agonists enhanced the beating rate of guinea pig atria (.beta.-1 action) and inhibited spontaneous contractions of rat uterus (.beta.-2 action) and colon (.beta.-3 action). There was found a statistically significant correlation between the IC50 values of the drugs on the colon and ED50 values on the indomethacin-induced antral ulcers (r = 0.97). In addn., the beta agonists excepting salbutamol increased antral gastric mucosal blood flow in rats anesthetized with halothane, and the activities were arranged in the potency order of inhibiting colon motility. //It is concluded that activation of .beta.-3 adrenoceptor attenuates the indomethacin-induced antral ulcers through an enhancement of antral gastric mucosal blood flow, whereas activation of beta-1 and/or /beta.-2 adrenoceptors attenuates indomethacin-induced corpus erosions through an inhibition of gastric secretion.

IT 121524-09-2, SR58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in rat)

L99 ANSWER 31 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:630444 HCAPLUS

DN 121:230444

TI Synthesis and .beta.-adrenergic activity of atypical .beta.-adrenergic phenylethanolaminotetralin stereoisomers

AU Cecchi, R.; Croci, T.; Boigegrain, R.; Boveri, S.; Baroni, M.; Boccardi, G.; Guimbard, J. P.; Guzzi, U.

CS Res. Cent., Sanofi Midy SpA, Milan, 20137, Italy

SO European Journal of Medicinal Chemistry (1994), 29(4), 259-67 CODEN: EJMCA5; ISSN: 0223-5234

DT Journal

LA English

OS CASREACT 121:230444

GΙ

AB A series of substituted phenylethanolaminotetralins were synthesized as pure stereoisomers and their ability to stimulate atypical .beta.-adrenoceptors selectively was evaluated. The compds. in vitro relative potencies were assessed using the atypical .beta. response of inhibition of rat proximal colon motility and the typical .beta.1 (increase in guinea-pig right atrial frequency) and .beta.2 (guinea-pig tracheal relaxation and rat uterus motility inhibition) responses. (2R,2'S)-I (SR 58611A) was found to be the most potent and selective.

Ι

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ΙT
     121216-31-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
         (prepn. and conversion of, to adrenergic phenylethanolaminotetralin
         stereoisomer)
     107758-36-1P 107758-37-2P 107758-38-3P
IT
     107758-39-4P 120839-53-4P 121216-32-8P
     158223-17-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
         (prepn. and .beta.-adrenergic activity of)
     ANSWER 32 OF 49 HCAPLUS COPYRIGHT 2002 ACS
L99
     1994:549595 HCAPLUS
AN
DN
     121:149595
     .beta.-Adrenergic control of lipolysis in primate white fat cells: a
TI
     comparative study with nonprimate mammals
ΑU
     Bousquet-Melou, Alain; Galitzky, Jean; Carpene, Christian; Lafontan, Max;
     Berlan, Michel
CS
     Faculte de Medecine, Universite Paul Sabatier, Toulouse, 31073, Fr.
     American Journal of Physiology (1994), 267(1, Pt. 2), R115-R123
SO
     CODEN: AJPHAP; ISSN: 0002-9513
DT
     Journal
LΑ
     English
AΒ
     The .beta.-adrenoceptor subtypes involved in the control of lipolysis in
     white fat cells of rat, dog, marmoset (Callithrix jacchus), baboon (Papio
     papio), macaque (Macaca fascicularis), and human were compared. In all species, [3H]CGP-12177 binding (up to 3 nM) indicated the existence of a
     homogeneous population of binding sites in fat cell membranes, and
     competition studies showed that .beta.1- and .beta.2-adrenoceptors were present. Selective .beta.1- or .beta.2-adrenoceptor agonists induced lipolysis. The efficiencies of isoproterenol and norepinephrine were
     similar. The use of selective .beta.3-adrenoceptor agonists revealed that
     BRL-37344 and CL-316243 were full agonists, whereas CGP-12177 and
     SR-58611A were partial agonists in rat and dog white fat
     cells. .beta.3-Agonists partially stimulated lipolysis in the marmoset,
     while CGP-12177 was weakly active in the baboon. In macaque and human fat
     cells, B3-agonists were ineffective. The lipolytic effect of
     norepinephrine involves .beta.1-and/or .beta.2-adrenoceptors in baboon,
     macaque, and human. The baboon and macaque constitute valuable models for
     studying the .beta.-adrenergic control of lipolysis.
     121524-09-2, SR-58611A
ΙT
     RL: BIOL (Biological study)
         (lipolysis stimulation by, in adipose tissue of human and mammals)
     ANSWER 33 OF 49 HCAPLUS COPYRIGHT 2002 ACS
L99
ΑN
     1994:473752 HCAPLUS
DN
     121:73752
ΤI
     SR 58611A: a novel thermogenic .beta.-adrenoceptor
     agonist
ΑU
     Nisoli, Enzo; Tonello, Cristina; Carruba, Michele O.
     Section of Pharmacology, Toxicology and Experimental Therapeutics,
Department of Biomedical Sciences and Biotechnologies, School of Medicine,
CS
     University of Brescia, Via Valsabbina 19, Brescia, 25123, Italy
SO
     European Journal of Pharmacology (1994), 259(2), 181-6
     CODEN: EJPHAZ; ISSN: 0014-2999
DΤ
     Journal
LA
     English
AB
     N(2S)-7-[carbethoxymethoxy-1,2,3,4-tetrahydronaphth-2-yl]-(2R)-2-hydroxy-2-
     (3-chlorophenyl)ethanamine hydrochloride (SR 58611A)
     increased cAMP levels in membrane homogenates from rat interscapular brown
     adipose tissue with an EC50 of 20 nM. Substitution of GTP with the GDP
     analog, guanosine-5'-O-[thiodiphosphate], in the incubation medium
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suppressed the stimulation of adenylyl cyclase activity by SR 58611A. This compd. also stimulated glycerol release from the

brown fat cells, with an EC50 of 11 nM. Only at doses higher than 10 .mu.M did the non-selective .beta.-adrenoceptor antagonists, propranolol and alprenolol, as well as the selective .beta.1- and .beta.2-adrenoceptor antagonists, (.+-.)-[2-(3-carbamoyl-4-hydroxyphenoxy)-ethylamino]-3-[4(1methyl-4-trifluoromethyl-2-imidazolyl)-phenoxy]-2 propanol (CGP 20712A) and erythro-(.+-.)-1-(7-methylindan-4-yloxy)-3-iso-propylaminobutan-2-olhydrochloride (ICI 118,551), antagonize the SR 58611A -induced stimulation of both adenylyl cyclase activity and lipid metab. Since, at high doses, all these .beta.- adrenoceptor antagonists lack selectivity for .beta.1- or .beta.2- adrenoceptors, these results suggest that the .beta.-adrenoceptor agonist, SR 58611A, activates thermogenesis by acting on brown fat cell .beta.3-adrenoceptors. This implies that this compd. might be useful for treatment of obesity. 121524-09-2, SR 58611A RL: BIOL (Biological study) (thermogenesis from, adipose tissue metab. in, antiobesity activity in relation to) ANSWER 34 OF 49 HCAPLUS COPYRIGHT 2002 ACS 1994:153732 HCAPLUS 120:153732 Atypical .beta.-adrenoceptor agonists for treatment of gastrointestinal disorders Bahl, Ashwani K. Glaxo Group Ltd., UK Can. Pat. Appl., 29 pp. CODEN: CPXXEB Patent English FAN.CNT 1 KIND DATE PATENT NO. APPLICATION NO. DATE _____ ---------AA CA 2087823 19930723 CA 1993-2087823 19930121 <--A2 EP 556880 19930825 EP 1993-200096 19930115 <--EP 556880 A3 19931027 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE EP 713698 A2 19960529 EP 1995-202209 19930115 <--EP 713698 ΑЗ 19960612 EP 713698 В1 20020403 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE AT 215365 20020415 AT 1995-202209 19930115 <--E AU 9331981 A1 19930729 AU 1993-31981 19930121 <--B2 AU 666904 19960229 JP 05255114 A2 19931005 JP 1993-8603 19930121 <--ZA 9300424 Α 19931011 ZA 1993/424 19930121 <--IL 1993/-104464 IL 104464 A1 19970930 19930121 <--Α PRAI GB 1992-1359 19920122 <--GB 1992-25684 GB 1992-25684 A EP 1993-200096 A3 19921209 <--19930115 <--MARPAT 120:153732 Agonists (Markush included) of atypical beta.-adrenoceptors are used for treating gastrointestinal disorders, esp: peptic ulceration, esophagitis, gastritis and duodenitis, intestinal ulcerations, including inflammatory bowel disease, and gastrointestinal ulcerations, esp. when induced by nonsteroidal antiinflammatory drugs or corticosteroids. Fifteen specific agonists are claimed. Thus, in animal studies, CL316243 [(R,R)-5-(2-((2-(3-chlorophenyl)-2-hydroxyethyl)amino)propyl)-1,3benzodioxole-2,2-dicarboxylic acid] showed 83 and 96% inhibition of indomethacin-induced and piroxicam-induced gastrointestinal damage, resp. Tablet, syrup, i.v. injection, and suppository formulations are included. 107758-23-6, SR 58572 107758-27-0, SR 58380

ΙT

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AB

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58611

107758-43-0, SR 58306 121524-08-1, SR

RL: BIOL (Biological study)
 (as agonist of atypical .beta.-adrenoceptor, for gastrointestinal
 disorder treatment)

L99 ANSWER 35 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:95485 HCAPLUS

DN 120:95485

- TI Effects of two .beta.3-adrenoceptor agonists, SR 58611A and BRL 37344, and of salbutamol on cholinergic and NANC neural contraction in guinea pig main bronchi in vitro
- AU Martin, Corinne A. E.; Naline, Emmanuel; Manara, Luciano; Advenier, Charles
- CS Dep. Pharmacol., Fac. Med. Paris-Ouest, Paris, F-75270, Fr.
- SO British Journal of Pharmacology (1993), 110(4), 1311-16 CODEN: BJPCBM; ISSN: 0007-1188
- DT Journal
- LA English
- AΒ The aim of the present study was to investigate the type of adrenoceptor which modulates constriction of the guinea-pig isolated main bronchus in response to elec. field stimulation (EFS). Drugs used were salbutamol and two agonists reportedly selective for the putative .beta.3-adrenoceptor: BRL 37344 and SR 58611A. At basal tone, all three drugs induced relaxation, however, SR 58611A and BRL 37344 (10-9 to 10-6 M) relaxed guinea-pig isolated main bronchus more weakly than salbutamol (10-9 to 10-6 M). The effects obsd. at 10-6 M were 43% .+-. 9%, 63% .+-. 4% and 98% .+-. 1% of the maximal effect induced by theophylline (3 .times. 10-3 M) for SR 58611A, BRL 37344 and salbutamol, resp. **SR 58611A** and BRL 37344 (10-8 to 10-6 M) did not significantly modify the cholinergic component of the response to EFS, but caused a concn.-dependent redn. of the nonadrenergic noncholinergic (NANC) excitatory component (41.8% .+-. 10.1% and 56.8% .+-. 7.4% resp. at 10-6 M, n = 6-7). Salbutamol (10-9 to 10-7M) strongly inhibited both components, with 91.1% .+-. 4.2% of inhibition for the NANC contraction and 62.0% .+-. 5.2% of inhibition for the cholinergic contraction (10-7 M, n = 7). Whereas t/he inhibitory effects of salbutamol were strongly inhibited by both prop#Anolol (10-6 M) and ICI 118,551 (10-6 M), those of BRL 37344 were only slightly, albeit significantly reduced by both propranolol and ICI/118,551, and those of SR 58611A were unaffected by treatment with either .beta.-adrenoceptor antagonist. An .alpha.2-advenoceptor antagonist, yohimbine, did not influence the inhibitory effects of any of the beta.-adrenoceptor agonists tested. Concn.-response curves to acetylcholine (10-8 to 10-3 M), [Nle10]NKA(4-10) (10-10 to 10-6 M) and substance P (10-10 to 3 .times. 10-6 M) were also significantly shifted to the right by salbutamol (10-6 M), whereas SR/58611Aand BRL 37344 (10-6 M) had no effect. These results suggest that the stimulation of putative .beta.3-adrenoceptors everts a specific prejunctional inhibitory action on NANC excitatory response induced by EFS of the isolated main bronchus of the guinea-pig. They also suggest that a .beta.2-adrenoceptor agonistic component may be involved in the effects of BRL 37344.
- IT 121524-09-2, SR 58611A

RL: BIOL (Biological study)

(cholinergic and NANC neural contraction in main bronchi response to, as .beta.3-adrenoceptor agonist)

- L99 ANSWER 36 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1993:663143 HCAPLUS
- DN 119:263143
- TI Similar atypical .beta.-adrenergic receptors mediate in vitro rat adipocyte lipolysis and colonic motility inhibition
- AU Landi, Marco; Croci, Tiziano; Manara, Luciano
- CS Res. Cent., SANOFI-MIDY S.p.A., Milan, 20137, Italy

- SO Life Sciences (1993), 53(18), PL297-PL302 CODEN: LIFSAK; ISSN: 0024-3205
- DT Journal
- LA English
- AB The authors studied the putative common nature of the rat atypical .beta.-adrenoceptors mediating white adipocyte lipolysis and proximal colon motility inhibition, using the nonselective antagonist alprenolol and agonist isoprenaline and the selective agonists SR 58611A and BRL 37344. Results in either isolated intestinal and fat tissues were consistent with: isoprenaline acting through both typical (.beta.1, .beta.2) and atypical .beta.-adrenoceptors; SR 58611A and BRL 37344 acting solely through the latter. The identical pA2 values obtained with alprenolol, irresp. of the tissue and the selective agonist (SR 58611A or BRL 37344) used, support the high functional homol. of the atypical .beta.-adrenoceptors in rat colon and adipocytes.
- IT 121524-09-2, SR 58611A
 - RL: BIOL (Biological study)
 - (adipocyte lipolysis and colonic motility response to,
 .beta.-adrenergic receptors mediation of)
- L99 ANSWER 37 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1992:585365 HCAPLUS
- DN 117:185365
- TI Phenylethanolaminotetralines compete with [3H]dihydroalprenolol binding to rat colon membranes without evidencing atypical .beta.-adrenergic sites
- AU. Landi, Marco; Bianchetti, Alberto; Croci, Tiziano; Manara, Luciano
- CS Res. Cent., Sanofi-Midy S.p.A., Milan, 20137, Italy
- SO Biochemical Pharmacology (1992), 44(4), 665-72 CODEN: BCPCA6; ISSN: 0006-2952
- DT Journal
- LA English
- AΒ [3H]Dihydroalprenolol ([3H]DHA)-specific binding (detd. by the difference in the presence and absence of 20 .mu.M (-)isoprenaline) to rat colon membranes was saturable (Bmax = 39.6 fmol/mg protein), of high affinity (Kd = 0.87 nM), and stereospecific (IC50 330 and 3510 nM for (-)- and (+)isoprenaline, resp.); the Hill coeff. was close to one, indicating binding homogeneity. [3H]DHA (0.6 nM) specific binding was potently inhibited (Ki range 1.9-3.3 nM) by the non-selective .beta.-adrenoceptor antagonists pindolol, alprenolol, and propranolol, but not by the nonadrenergic compds. 5-hydroxytryptamine, 8-hydroxydipropylaminotetraline , methylsergide, dopamine, and verapamil (Ki >10,000 nM). The selective .beta.1- and .beta.2-adrenoceptor antagonists CGP 20,712A and ICI 118,551 resulted in biphasic competition binding curves, whose low and high affinity components were compatible with two populations of binding sites accounting for about 75 (.beta.2) and 25% (.beta.1) of total sites. The relative competing potencies of ref. adrenergic agonists also suggested a prevalence of .beta.2-adrenergic sites. The new agonists phenylethanolaminotetralines (PEATs), highly selective for the atypical .beta.-adrenoceptors whose abundance in rat colon has been confirmed by comprehensive functional studies, had variable affinity for the [3H]DHA-labeled sites depending on chirality, but with no substantial correlation with their pharmacol. potency. Only 40% of [3H]DHA binding, at a concn. about 10 times its Kd for high affinity sites (.beta.1 and .beta.2), was prevented by satg. concns. of isoprenaline. Under this condition, the representative PEAT, SR 58611A, highly potent and selective for atypical .beta.-adrenoceptors in functional tests, and its pharmacol. inactive enantiomer, both inhibited the residual binding equipotently. conclusion, [3H]DHA binding did not detect atypical .beta.-adrenoceptor sites in rat colon membranes, most probably because of its weaker affinity for them than for the coexisting .beta.1 and .beta.2 sites. PEAT stereoisomers proved essential for assessing both the stereospecificity and the functional significance of this atypical binding and to compare

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their affinity for [3H]DHA-labeled sites and pharmacol. potency.
ΙT
     107758-36-1, SR 58375A 107758-37-2, SR 58374A
     107758-39-4, SR 58373A 107758-41-8, SR 58372
     120839-53-4, SR 58572A 121216-30-6, SR 58590 121216-31-7, SR 58589 121216-32-8, SR 58575A
     RL: BIOL (Biological study)
        (dihydroalprenolol binding by colon membranes displacement by)
L99
     ANSWER 38 OF 49 HCAPLUS COPYRIGHT 2002 ACS
     1992:584788 HCAPLUS
ΑN
DN
     117:184788
ΤI
     Antidepressant profile in rodents of SR 58611A, a new
     selective agonist for atypical .beta.-adrenoceptors
     Simiand, Jacques; Keane, Peter E.; Guitard, Josette; Langlois, Xavier;
ΑU
     Gonalons, Nadine; Martin, Patrick; Bianchetti, Alberto; Le Fur, Gerard;
     Soubrie, Philippe
CS
     Sanofi Rech., Toulouse, 31036, Fr.
SO
     European Journal of Pharmacology (1992), 219(2), 193-201
     CODEN: EJPHAZ; ISSN: 0014-2999
DT
     Journal
LA
     English
AΒ
     .beta.2-Adrenoceptor agonists possess antidepressant-like activity in
     animals and man, but their peripheral side-effects prevent their
     therapeutic use. Atypical .beta.-adrenoceptors have not been f\phi und in the
     central nervous system, but exist in peripheral tissues such as the rat
             The antidepressant-like effects of SR 58611A
     were studied in mice and rats. SR 58611A was active
     with minimal EDs of 0.1-0.3 mg/kg i.p. in several models (antagonism of
     hypothermia induced by apomorphine and reserpine, potentiation of
     yohimbine toxicity, reversal of learned helplessness), but was inactive in the tests of reserpine-induced ptosis and behavioral despair. The
     antidepressant-like effect of SR 58611A was not
     antagonized by selective .beta.1- or .beta.2-adrenergic receptor
     antagonists, but was blocked by high doses of the non-selective
     .beta.-adrenoceptor antagonists propranolol and alprenolol. Unlike
     .beta.2-adrenoceptor agonists, SR 58611A did not
     reduce the locomotor activity or increase the water intake at doses up to
     10 mg/kg. SR 58611A is a prototype of a new class of
     antidepressant compds.
TΤ
     121524-09-2
     RL: BIOL (Biological study)
        (antidepressant pharmacol. of, atypical .beta.-adrenergic receptors
        role in)
L99
    ANSWER 39 OF 49 HCAPLUS COPYRIGHT 2002 ACS
     1992:563882 HCAPLUS
ΑN
DN
     117:163882
TI
     Phenylethanolaminotetralins as antidepressant and antistress agents
     Keane, Peter Eugene; Bianchetti, Alberto; Simiand, Jacques; Croci, Tiziano
ΙN
PA
     Elf Sanofi, Fr.
SO
     Eur. Pat. Appl., 10 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                             APPLICATION NO.
                                                              DATE
     EP 489640
                                             EP 1991-403263
PΙ
                             19920610
                       А1
                                                               19911203 <--
                             19961002
                      В1
         R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE
     FR 2669821
                      A1
                             19920605
                                            FR 1990-15171
                                                               19901204 <--
     FR 2669821
                       В1
                             19941209
     AT 143592
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E

19961015

AT 1991-403263

19911203 <--

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CA 2056906
                        AΑ
                             19920605
                                             CA 1991-2056906
                                                               19911204 <--
     CA 2056906
                        С
                             19980428
     AU 9188395
                        A1
                             19920611
                                             AU 1991-88395
                                                               19911204 <--
     AU 653968
                        B2
                             19941020
     HU 59595
                        A2
                             19920629
                                             HU 1991-3800
                                                               19911204 <--
     HU 207793
                        В
                             19930628
     JP 05025040
                        A2
                             19930202
                                             JP 1991-320532
                                                               19911204 <--
     US 5270341
                        A
                             19931214
                                             US 1991-804580
                                                               19911204 <--
PRAI FR 1990-15171
                             19901204
OS
     MARPAT 117:163882
GΙ
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AB The title compds. I (A = C1-4 alkylene; R = H, C1-4 alkyl) are drugs for the prevention and treatment of depression and stress. Oral administration of N-[(2S)7-ethoxycarbonylmethoxy-1,2,3,4-tetrahydronaphth-2-y1]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl (2 mg/kg) lowered the myoelec. activity of the proximal colon in rats under immobilization stress.

Ι

IT 121524-10-5 121524-11-6 129831-97-6 135025-87-5 143554-26-1 143554-27-2 RL: BIOL (Biological study) (antidepressant and antistress agent)

L99 ANSWER 40 OF 49 HCAPLUS COPYRIGHT 2002 ACS

1992:483203 HCAPLUS ΑN

117:83203 DN

ΤI Stimulation of bicarbonate secretion by atypical .beta.-receptor agonists in rat cecum in vitro

ΑU Canfield, Paul; Abdul-Ghaffar, Tarik

CS

Med. Sch., St. Mary's Hosp., London, W2 1PG, UK European Journal of Pharmacology (1992), 216(2), 293-7 SO CODEN: EJPHAZ; ISSN: 0014-2999

DT Journal

LA English

AB This study examd. the effects of .beta.-adrenoceptor agonists on bicarbonate secretion by the rat cecum in vitro. Isoprenaline, the .beta.2-selective agonist salbutamol and the 'atypical' .beta.-agonist SR58611A stimulated bicarbonate secretion in a concn. related manner. Another atypical agonist, BRL 37344, also stimulated. Responses to isoprenaline were antagonized by alprenolol and propranolol (both 20 .mu.M) but not the selective antagonists practolol (10 .mu.M) or ICI 1185511 (1 .mu.M). Responses to Sr 58611A were only antagonized by alprenolol. Replacement of C1- by NO3- on the mucosal surface reduced basal secretion and abolished the response to isoprenaline. Exposure to a single concn. of atypical agonist resulted in desensitization to a second application and to isoprenaline. There was no evidence of desensitization with isoprenaline or salbutamol. The results show that .beta.-adrenoceptor agonists stimulated bicarbonate secretion in contrast to the previously described inhibitory effect of cholinergic drugs in this tissue. Stimulation was mediated by .beta.-adrenoreceptors, which had properties consistent with the atypical receptors described in gut smooth muscle and in adipose tissue. Both adrenergic and cholinergic drugs may act on the same mechanism of secretion which may involve an

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exchange of HCO3- for mucosal Cl-.
IT 121524-09-2, SR 58611A
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RL: BIOL (Biological study)

(cecum bicarbonate secretion response to)

L99 ANSWER 41 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1991:457179 HCAPLUS

DN 115:57179

TI Use of phenylethanolamines for the preparation of a medicament for treating ophthalmologic disorders, especially glaucoma

IN Manara, Luciano

PA SANOFI, Fr.; Midy S.p.A.

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent LA French

FAN CNT 2

GI

FAN.	CNT 2					
	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	EP 403360	A2	19901219		EP 1990-401606	19900612 <
	EP 403360	A3	19920226			
	EP 403360	B1	19961016			
	R: AT, BE,	CH, DE	, DK, FR,	GB,	IT, LI, LU, NL, SE	
	FR 2648042	A1	19901214		FR 1989-7816	19890613 <
	FR 2648042	B1	19940610			
	FR 2648043	A1	19901214		FR 1989-7817	19890613 <
	FR 2648043	B1	19940722			
	US 5236951	Α	19930817		US 1990-536741	19900612 <
	AT 144139	E	19961115		AT 1990-401606	19900612 <
	JP 03031212	A2	19910212		JP 1990-154967	19900613 <
	JP 2844109	B2	19990106			
	US 5312961	A	19940517		US 1992-905483	19920629 <
PRAI			19890613	<	-	
	FR 1989-7817		19890613	<	-	
	FR 1989-1910		19890214	<	-	
	US 1990-480207		19900214	<	-	
	EP 1990-401606		19900612		-	
	US 1990-622964		19901206	<	-	
os	MARPAT 115:5717	9				

$$- \overset{Z}{\operatorname{CH-}} (\operatorname{CH_2})_{\,n} - \operatorname{W} - \overset{Z}{\operatorname{R''}} = \operatorname{R'}$$

Phenylethanolamine derivs. ACH(OX)CH2N(Y)T [A = benzofuran-2-yl, (un)substituted Ph; X = H, lower alkyl, lower alkanoyl; Y = H, A1CH(OH)CH2 (A1 = (un)substituted Ph), or XY = (lower carbalkoxy-substituted) CH2, (oxo-substituted) CH2CH2, 1,3-propylene; T = Q (n = 1-3; W = bond, O; Z = H, lower alkyl; R' = H, lower alkyl, OH, lower alkoxy, etc.; R'' = H, halo, lower alkyl, etc.), etc. (with provisions)], and their pharmaceutically acceptable salts, are provided for prepn. of ophthalmic pharmaceuticals for treatment of e.g. glaucoma. Thus, an ophthalmic soln. contained N-[(2S)-7-ethoxycarbonylmethoxy-1,2,3,4-tetrahydronaphth-2-yl]-(2R)-2-(3-chlorophenyl)-2-hydroxyethanamine HCl (I) 1.0, NaH2PO4 10.4,

Na2HPO4 2.4, chlorobutanol 5.0, hydroxypropylmethyl cellulose 5.0 mg, 1N NaOH to pH 7.4, and water to 1.0 mL. I was tested in an exptl. (rabbit) glaucoma model.

IT 107758-23-6 121216-30-6 121489-39-2

121489-40-5 121524-07-0 121524-08-1

129831-97-6 132990-67-1 132990-74-0

135025-87-5 135025-88-6 135025-89-7

RL: BIOL (Biological study)

(ophthalmic pharmaceutical contg., for glaucoma treatment)

L99 ANSWER 42 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1991:185045 HCAPLUS

DN 114:185045

TI Preparation of 2-amino-7-hydroxytetralin carboxyalkyl ethers as intermediates for spasmolytic phenylethanolaminotetralins

IN Guzzi, Umberto; Cecchi, Roberto

PA SANOFI, Fr.; Midy S.p.A.

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 2

GΙ

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 383686 EP 383686	A1 B1		EP 1990-400405	19900214 <
				, GB, GR, IT, LI, LU	, NL
	FR 2643076	A1	19900817	FR 1989-1910	19890214 <
	FR 2643076	· B1	19910621		
	CA 2009992	AA	19900814	CA 1990-2009992	19900214 <
	AU 9049786	A1	19900823	AU 1990-49786	19900214 <
	AU 642402	B2	19931021		
	ZA 9001121	A	19901128	ZA 1990-1121	19900214 <
	JP 03014548	A2	19910123	JP 1990-33584	19900214 <
	JP 2852681	В2	19990203		
	AT 92470	E	19930815	AT 1990-400405	19900214 <
	ES 2060079	Т3	19941116	ES 1990-400405	19900214 <
PRAI	FR 1989-1910		19890214 <		
	EP 1990-400405		19900214 <		•
os	CASREACT 114:18	5045; M	IARPAT 114:18	5045	

I

AB Aminohydroxytetralin ethers I (Alk = C3-5 straight or branched alkylene; R = H, C1-4 alkyl) were prepd. as intermediates for spasmolytic (no data) phenylethanolaminotetralins II (X = H, halo, C1-4 alkyl, CF3). For example, alkylation of 2-benzylamino-7-hydroxytetralin by Br(CH2)5CO2Et

II

kim - 10 / 044531using NaH in PhMe, followed by salification with HCl(g) in Me2CHOH, and then hydrogenolysis over Pd/C in EtOH at 60.degree., gave I.HCl [Alk = $\frac{1}{2}$] (CH2)5, R = Et]. This was neutralized and coupled with 3-chlorostyrene oxide in Me2SO in the presence of N-(trimethylsilyl)acetamide at 80.degree. to give, after chromatog. and salification, II.HCl (Alk and R as above; X = 3-C1). 132990-64-8P 132990-65-9P 132990-66-0P 132990-67-1P 132990-68-2P 132990-69-3P 132990-74-0P 132990-75-1P 132990-76-2P 132990-77-3P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as spasmolytic) ANSWER 43 OF 49 HCAPLUS COPYRIGHT 2002 ACS 1990:565225 HCAPLUS 113:165225 In vitro inhibition of intestinal motility by phenylethanolaminotetralines: evidence of atypical .beta.-adrenoceptors in rat colon Bianchetti, Alberto; Manara, Luciano Res. Cent., Sanofi-Midy S.p.A., Milan, 20137, Italy Br. J. Pharmacol. (1990), 100(4), 831-9 CODEN: BJPCBM; ISSN: 0007-1188 Journal English The new compds. phenylethanolaminotetralines (PEAT), unlike the ref. .beta.-adrenoceptor agonists isoprenaline (Iso), ritodrine (Ri) and salbutamol (Sal), produced half-maximal inhibition of spontaneous motility of rat isolated proximal colon at substantially lower concns. (EC50 2.7-30 nM) than those inducing .beta.2-adrenoceptor-mediated responses (relaxation of guinea-pig isolated trachea and rat uterus) and had virtually no chronotropic action (EC50 >3 .times. 10-5 M) on the guinea-pig isolated atrium (a .beta.1-adrenoceptor-mediated response). The nonselective .beta.-adrenoceptor antagonists alprenolol and propranolol prevented the inhibition of rat colon motility by the PEAT with low and different potencies (pA2 values around 7.5 and 6.5 resp.). Conversely alprenolol and propranolol had a higher and similar potency (pA2 values around 9.0) in preventing typical .beta.1- or .beta.2-responses (increase in atrial frequency by Iso or tracheal relaxation by Ri or Sal). The selective .beta.-adrenoceptor antagonists CGP 20712A (.beta.1) and ICI 118,551 (.beta.2) either alone or in combination, did not prevent rat colon motility inhibition by the representative PEAT SR 58611A, which was also fully resistant to .alpha.-adrenoceptor, acetylcholine, dopamine, histamine, opioid and 5-hydroxytryptamine antagonists. These results indicate that the PEAT are a new class of .beta. adrenoceptor agonists and suggest that their preferential intestinal action may be accounted for by selectivity for atypical .beta.-adrenoceptors, abundant in the rat colon and distinct from the currently recognized .beta. \downarrow 1 and .beta.2 subtypes. **107758-36-1**, SR 58375A **107758-39-4**, \$R 58373A 107758-41-8, SR 58372 107758-42-9, SR\58374 120839-53-4, SR 58572A 121216-30-6, SR 58590 **121216-31-7**, SR 58589 **121216-32-8**, SR 58575A 121524-09-2, SR 58611A 121524-10-5, SR 58612A 121524-11-6, SR 58613A 129831-97-6, SR 58825A RL: BIOL (Biological study)

ANSWER 44 OF 49 HCAPLUS COPYRIGHT 2002 ACS L99

ΑN 1989:546279 HCAPLUS

DN 111:146279

L99

ΑN

DN

ΤI

ΑU

CS'

SO

DT

LA

AB

ΙT

ΤI New developments in .beta.-adrenergic-mediated control of intestinal

(as atypical .beta.-adrenergic agonists, in colon)

motility: qut-specific phenylethanolaminotetralines

Manara, Euciano; Bianchetti, Alberto; Croci, Tiziano; Giudice, Antonia ΑU

Res. Cent., Midy S.p.A., Milan, 20137, Italy CS

Fidia Res. Found. Symp. Ser. (1989), 2 (Neurochem. SO Pharmacol.-Tribute B. B. Brodie), 131-47

CODEN: FRFSEL; ISSN: 1040-0451

DT Journal

LA English

GI

$$X$$
 CH (OH) CH₂NH Y

AB The pharmacol. of the title compds. (I; X = H or Cl; Y = OH or OCH2CO2Et) was studied in lab. animals and in in vitro prepns. These compds. inhibit spontaneous motility of the rat colon in vitro and in vivo through an atypical .beta.-adrenergic mechanism and, unlike ref. .beta.-adrenoceptor agonists, are gut-specific. Structure-activity relations are discussed.

107758-36-1, SR 58375A 107758-39-4, SR 58373A 107758-41-8, SR 58372 107758-42-9, SR 58374

120839-53-4, SR 58572A 120839-54-5, SR 58539B

121216-30-6, SR 58590 121216-31-7, SR 58589

121216-32-8, SR 58575A 121489-36-9, SR 58538B

RL: BIOL (Biological study)

(intestinal motility inhibition by, .beta.-adrenergic mechanism in, structure in relation to)

L99 ANSWER 45 OF 49 HCAPLUS COPYRIGHT 2002 ACS

ΑN 1989:439023 HCAPLUS

DN 111:39023

ΤI O-alkylation process for N-(hydroxyaralkyl)phenylethanolamines useful as drug intermediates, and the N-protected intermediates thereof

Boigegrain, Robert; Cecchi, Roberto; Boveri, Sergio IN

PA SANOFI, Fr.; Midy S.p.A.

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN CNT 1

PAN.	NI	T							
	PAI	ENT NO.		KIND	DATE		APPLICATION NO.	DATE	
ΡI	EΡ	303546		A2	19890215		EP 1988-402095	19880811	<
	ΕP	303546		A3	19901017				
	EΡ	303546		В1	19941228				
		R: AT,	BE,	CH, D	E, ES, FR,	GB,	GR, IT, LI, LU, NL	, SE	
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	FR	2619379		B1	19900112				
		2632637		A1	19891215		FR 1988-7948	19880614	<
	FR	2632637		B1	19901012				
	US	4927955		Α	19900522		US 1988-230860	19880811	<
	ES	2067483		Т3.	19950401		ES 1988-402095	19880811	<
	JP	01066152		A2	19890313		JP 1988-202621	19880812	<
	JΡ	2611816		B2	19970521				
	JP	09110811		A2	19970428		JP 1996-145620	19880812	<
	DK	8902938		A	19891215		DK 1989-2938	19890614	<
	DK	172256		B1	19980209		•		
	EΡ	347313		A2	19891220		EP 1989-401661	19890614	<

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EP 347313
                        A3
                              19901219
     EP 347313
                        B1
                              19931215
                      CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
         R: AT, BE,
                              19900803
     JP 02196760
                        A2
                                              JP 1989-153580
                                                                19890614 <--
     JP 2829306
                        B2
                              19981125
     AT 98628
                        Ε
                              19940115
                                              AT 1989-401661
                                                                19890614 <--
     ES 2062062
                        T3
                              19941216
                                              ES 1989-401661
                                                                19890614 <--
     US 5041606
                        Α
                              19910820
                                              US 1990-488137
                                                                19900305 <--
     US 5159103
                        Α
                              19921027
                                              US 1992-825841
                                                                19920128 <--
     US 5202466
                        Α
                              19930413
                                              US 1992-922486
                                                                19920731 <--
     US 5347037
                        Α
                              19940913
                                              US 1993-114190
                                                                19930901 <--
PRAI FR 1987-11498
                              19870812
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     FR 1988-7948
                              19880614
                                         <--
     US 1988-230860
                              19880811
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     JP 1988-202621
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     US 1991-698087
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     US 1992-825841
                              19920128
                                         <--
     US 1992-909315
                              19920706
                                         <--
os
     CASREACT 111:39023; MARPAT 111:39023
GΙ
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AB Title amines I (X = H, halo, CF3, alkyl; W = Me and Q = H; or WQ = CH2CH2; R = Y = H) undergo N-protection at Y, O-alkylation by Hal-CH2CO2R1 (Hal = Cl, Br, iodo; Rl = alkyl), and deblocking at Y to give I (Y = H, R = CH2CO2R1), which show spasmolytic activity. 2-Amino-7-methoxytetralin underwent resoln. by (+)- and (-)-mandelic acids, the latter giving the salt of (-)-amine, and then demethylation by 48% HBr to give (S)-(-)-2-amino-7-hydroxytetralin. This was condensed with (R)-3-chloromandelic acid to give the amide, which was reduced by BH3.SMe2 to give N-((2S)-7-hydroxy-1,2,3,4-tetrahydronaphth-2-yl]-(2R)-2-(3-total)chlorophenyl)-2-hydroxyethanamine. This compd. underwent quant. N-protection by di-tert-Bu dicarbonate in DMF, and the N-tert-butoxycarbonyl deriv. underwent O-alkylation of 7-OH by BrCH2CO2Et and K2CO3 in refluxing Me2CO, deprotection by CF3CO2H in CH2Cl2, and salification in EtOH to give 22% (ethoxycarbonylmethoxytetrahydronaphthyl) (chlorophenyl) hydroxyethanamine-HCl II. The IC50 of II for inhibition of spontaneous motility of the rat colon in vitro was 3.5 .times. 10-9 M.

II

IT 120839-53-4P 121216-30-6P 121216-31-7P 121216-32-8P 121251-85-2P 121312-24-1P 121489-40-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction of, in prepn. of phenylethanolamine drugs)

IT 120839-54-5P 121489-31-4P 121489-33-6P

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121489-35-8P 121489-36-9P 121489-39-2P
     121524-07-0P 121524-08-1P 121524-09-2P
     121524-10-5P 121524-11-6P
     RL: BAC (Biological activity or effector, except adverse); SPN
     (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
        (prepn. of, as drug)
L99
     ANSWER 46 OF 49 HCAPLUS COPYRIGHT 2002 ACS
AN
     1989:423206 HCAPLUS
DN
     111:23206
     Process for the preparation of phenylethanolaminotetralins as drugs
ΤI
ΤN
     Boigegrain, Robert; Cecchi, Roberto; Boveri, Sergio
PA
     SANOFI, Fr.; Midy S.p.A.
SO
     Eur. Pat. Appl., 15 pp.
     CODEN: EPXXDW
DT
     Patent
     French
LA
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
     ______
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                                            ______
                                                             -----
                       A2
                            19890215
PΙ
     EP 303545
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     EP 303545
                       A3
                            19890524
                       В1
                            19920617
     EP 303545
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                                            FR 1988-4219
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                       В1
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                       Α1
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                       В1
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     FR 2632636
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                       Ε
                            19920715
                                           AT 1988-402094
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                       Т3
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                            19940116
                                           ES 1988-402094
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                       B2
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                                            US 1990-603247
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                            19930330
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                       Α
                            19930810
                                            US 1992-990762
                                                             19921215 <--
PRAI FR 1987-11497
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     FR 1988-4219
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                            19880614
     FR 1988-7947
                                       <--
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19880811

19880811

19901025

EP 1988-402094

US 1988-231374

US 1990-603247

MARPAT 111:23206

OS

GI

AB The title compds. I (X = H, halo, CF3, lower alkyl; R = H, Me group substituted with CO2H, carbalkoxy) and pharmaceutically acceptable salts thereof, useful as drugs (no data), were prepd. Amidation of 3-chloromandelic acid with 2-amino-7-hydroxytetralin, followed by redn. by LiAlH4, gave N-(7-hydroxy-1,2,3,4-tetrahydronaphth-2-yl)-2-(3-chlorophenyl)-2-hydroxyethanamine.

Ι

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IT 107758-16-7P 107758-23-6P 107758-43-0P 120839-53-4P 121216-30-6P 121216-31-7P 121216-32-8P 121216-37-3P 121251-85-2P

121312-24-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. of, as drug)

L99 ANSWER 47 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1989:225302 HCAPLUS

DN 110:225302

TI Inhibition of rat colonic motility and cardiovascular effects of new gut-specific beta-adrenergic phenylethanolaminotetralines

AU Giudice, Antonina; Croci, Tiziano; Bianchetti, Alberto; Manara, Luciano

CS Res. Cent., MIDY S.p.A., Milan, 20137, Italy

SO Life Sci. (1989), 44(19), 1411-17 CODEN: LIFSAK; ISSN: 0024-3205

DT Journal

LA English

The ability of the new putative .beta.-adrenergic agonists, the AΒ phenylethanolaminotetralines (PEATs), to inhibit intestinal motility was studied in relation to their cardiovascular effects in anesthetized rats. The representative PEATs SR 58375A, SR 58572A, and SR 58539B and the ref. .beta.-adrenergic agonists isoproterenol, salbutamol, and ritodrine caused dose-related inhibition of proximal colon spontaneous motility: ED50 210, 92, and 19; 5.6, 176, and 201 .mu.g/kg, i.v., resp. This inhibition was prevented by the .beta.-adrenergic antagonist alprenolol, but not by desipramine (which prevented the inhibition of clonic motility by tyramine and enhanced that by norepinephrine). The minimal EDs (MED) of isoproterenol, salbutamol, and ritodrine raising heart rate and (or) lowering blood pressure (by 10-20%), was substantially lower (about 1/10to 1/150) than their ED50 for inhibition of colonic motility. raising heart rate of the 3 PEATs, on the other hand, was .apprx.2 (SR 58375A and SR 58572A) to 5 (SR 58539B) times their ED50 for inhibition of colonic motility. None of the PEATs lowered blood pressure up to the top tested dose. Therefore the PEATs may prove preferable to the currently best tolerated .beta.-adrenoceptor agonists, because they appear less liable to induce cardiovascular side effects. This supports the prospective therapeutic interest of PEATs for intestinal hypermotility disorders.

IT 107758-36-1 120839-53-4 120839-54-5

RL: BIOL (Biological study)

(intestine motility decrease by, cardiovascular effect in relation to)

- L99 ANSWER 48 OF 49 HCAPLUS COPYRIGHT 2002 ACS
- AN 1988:198231 HCAPLUS

DN 108:198231

TI Inhibition of rat colon motility by stimulation of atypical beta-adrenoceptors with new gut-specific agents

AU Croci, Tiziano; Cecchi, Roberto; Tarantino, Antonio; Aureggi, Giulio; Bianchetti, Alberto; Boigegrain, Robert; Manara, Luciano

CS Res. Cent., MIDY S.p.A., Milan, 20137, Italy

SO Pharmacol. Res. Commun. (1988), 20(2), 147-51 CODEN: PLRCAT; ISSN: 0031-6989

DT Journal

LA English

GΙ

AB The new putative .beta.-adrenergic agonists SR 58306A (I) and SR 58339A (II) were studied in vitro in comparison with ref. compds. I and II, unlike isoprenaline and the .beta.2-selective adrenergic agonists salbutamol and ritodrine, potently inhibited rat colon spontaneous contractions. They did not increase guinea pig atrium frequency or relax guinea pig trachea. The nonselective .beta.-adrenergic antagonists alprenolol, pindolol, and propranolol competitively antagonized the action of I on the colon, whereas the selective antagonists atenolol (.beta.1-) and ICI 118551 (.beta.2-) did not. In the same prephy. only alprenolol competitively antagonized isoprenaline; the antagonism by either pindolol or propanolol was not competitive. These results suggest that in the rat colon isoprenaline interacts with different .beta -receptor subclasses, whereas the 2 new gut-specific compds. inhibit colonic motility by selectively stimulating atypical .beta.-adrenoceptors 107758-16-7 107758-24-7 ΙT RL: BIOL (Biological study) (intestine motility inhibition by, atypical .beta.-adrenergic receptors in relation to) L99 ANSWER 49 OF 49 HCAPLUS COPYRIGHT 2002 ACS 1987:156084 HCAPLUS ΑN DN 106:156084 ΤI Phenylethanolaminotetralins, a process for their preparation, and pharmaceutical compositions containing them IN Cecchi, Roberto; Boigegrain, Robert; Bianchetti, Alberto; Poggesi, Elena; Croci, Tiziano PA SANOFI, Fr.; Midy S.p.A. SO Eur. Pat. Appl., 40 pp. CODEN: EPXXDW DTPatent LA French FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

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•	FR	2584712	A1	19870116			1985-10559	19850710	<
	FR	2584712	B1	19871127					
	FR	2598410	A1	19871113		FR	1986-6626	19860507	<
	FR	2598410	B1	19880916					
	IL	79323	A1	19900319		$_{ t IL}$	1986-79323	19860702	<
		2002717	A6	19881001		ES	1986-121	19860704	<
	AT	46900	E	19891015		AT	1986-401494	19860704	<
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	-	8659889	A1	19870115		UΑ	1986-59889	19860709	<
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PRAI		1985-10559		19850710					
		1986-6626		19860507					
	ΕP	1986-401494		19860704	<	-			

OS CASREACT 106:156084

AB The title compds. [I; R = H, halo, alkyl, CF3; R1 = OH, (substituted) alkoxy] and their salts, useful as lipolytic agents, are prepd. A MeOH soln. of 0.8 g 2-amino-1-phenylethanol and 1 g 7-methoxy-2-tetralone was reacted at 35.degree. over 4 h in the presence of H2 and PtO2 to give 37% I.HCl (R = H, R1 = 7-MeO) which (30 mg) was the active ingredient in a sterile parenteral soln. also contg. 5 mg NaCl and 2 mL distd. H2O. The title compds. show strong lipolytic activity both in vitro and in vivo in brown and white adipose tissue.

IT 107758-10-1P 107758-11-2P 107758-12-3P 107758-13-4P 107758-14-5P 107758-15-6P 107758-16-7P 107758-18-9P 107758-19-0P 107758-20-3P 107758-21-4P 107758-22-5P 107758-23-6P 107758-24-7P 107758-25-8P 107758-26-9P 107758-27-0P 107758-28-1P 107758-29-2P 107758-30-5P 107758-31-6P 107758-32-7P 107758-33-8P 107758-34-9P 107758-35-0P 107758-36-1P 107758-37-2P 107758-38-3P 107758-42-9P 107758-40-7P 107758-41-8P 107758-42-9P 107758-43-0P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as antiobesity agent)

=> fil reg FILE 'REGISTRY' ENTERED AT 10:14:49 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L95 ANSWER 1 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 191533-25-2 REGISTRY

CN Acetic acid, [[(7R)-7-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, [R-(R*,R*)]-

OTHER NAMES:

CN SR 58878

FS STEREOSEARCH

MF C20 H22 C1 N O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:61038

L95 ANSWER 5 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 158223-17-7 REGISTRY

CN 2-Naphthalenol, 7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, hydrochloride, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C18 H20 C1 N O2 . C1 H

SR CA

LC STN Files: CA, CAPLUS

CRN (121216-30-6)

Absolute stereochemistry.

HC1

- 1 REFERENCES IN FILE CA (1962 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

L95 ANSWER 10 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 132990-76-2 REGISTRY

CN Butanoic acid, 4-[[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C24 H30 C1 N O4

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{EtO-C- (CH2)} \text{ 3-O} \\ \end{array} \\ \begin{array}{c} \text{OH} \\ \text{NH-CH2-CH-} \\ \end{array} \\ \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 114:185045

L95 ANSWER 15 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 132990-67-1 REGISTRY

CN Propanoic acid, 2-[[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-2-methyl-, ethyl ester, hydrochloride (9CI) (CA INDEX NAME)

MF. C24 H30 Cl N O4 . Cl H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (132990-77-3)

● HCl

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:57179

REFERENCE 2: 114:185045

L95 ANSWER 20 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 121489-39-2 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-

tetrahydro-2-naphthalenyl]oxy]-, methyl ester, hydrochloride, $[R-(R^*,R^*)]-(9CI)$ (CA INDEX NAME)

FS STEREOSEARCH

MF C21 H24 C1 N O4 . C1 H

SR CF

LC STN Files: CA, CAPLUS, USPATFULL

CRN (121489-31-4)

Absolute stereochemistry.

● HCl

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:57179

REFERENCE 2: 111:39023

L95 ANSWER 25 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 121216-32-8 REGISTRY

CN 2-Naphthalenol, 7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, hydrochloride, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58575A

FS STEREOSEARCH

DR 121489-41-6

MF C18 H20 C1 N O2 . C1 H

SR CA

LC STN Files: CA, CAPLUS, DDFU, DRUGU, USPATFULL

Absolute stereochemistry.

HC1

- 6 REFERENCES IN FILE CA (1962 TO DATE)
- 6 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 113:165225

REFERENCE 4: 111:146279

REFERENCE 5: 111:39023

REFERENCE 6: 111:23206

L95 ANSWER 30 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-42-9 REGISTRY

CN 2-Naphthalenol, 5,6,7,8-tetrahydro-7-[(2-hydroxy-2-phenylethyl)amino]-, $[R-(R^*,S^*)]-$ (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58374

FS STEREOSEARCH

MF C18 H21 N O2

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:165225

REFERENCE 2: 111:146279

REFERENCE 3: 106:156084

L95 ANSWER 35 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-37-2 REGISTRY

CN 2-Naphthalenol, 5,6,7,8-tetrahydro-7-[(2-hydroxy-2-phenylethyl)amino]-, hydrochloride, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58374A

FS STEREOSEARCH

MF C18 H21 N O2 . C1 H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (107758-42-9)

Absolute stereochemistry.

● HCl

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 106:156084

L95 ANSWER 40 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-32-7 REGISTRY

CN Benzenemethanol, .alpha.-[[(1,2,3,4-tetrahydro-7-methoxy-2-

naphthalenyl)amino]methyl]-, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C19 H23 N O2

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 45 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-26-9 REGISTRY

CN 2-Naphthalenol, 7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, (2E)-2-butenedioate (salt) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Naphthalenol, 7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, (E)-2-butenedioate (salt)

FS STEREOSEARCH

MF C18 H20 C1 N O2 . x C4 H4 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 107758-23-6 CMF C18 H20 C1 N O2

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

$$_{\mathrm{HO_{2}C}}$$
 $^{\mathrm{E}}$ $_{\mathrm{CO_{2}H}}$

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 50 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-21-4 REGISTRY

CN Benzenemethanol, 3-chloro-.alpha.-[[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)

MF C19 H22 C1 N O2 . C1 H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (107758-22-5)

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 55 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-16-7 REGISTRY

CN 2-Naphthalenol, 5,6,7,8-tetrahydro-7-[(2-hydroxy-2-phenylethyl)amino]-, hydrochloride (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58306A

MF C18 H21 N O2 . C1 H

SR CA

LC STN Files: ADISINSIGHT, BIOBUSINESS, BIOSIS, CA, CAPLUS, DDFU, DRUGU, MEDLINE, PHAR, PROMT, USPATFULL

CRN (107758-43-0)

HC1

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:23206

REFERENCE 2: 108:198231

REFERENCE 3: 106:156084

L95 ANSWER 60 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-11-2 REGISTRY

CN Benzenemethanol, .alpha.-[[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl]- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C19 H23 N O2

CI COM

SR CA

LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 61 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-10-1 REGISTRY

CN Benzenemethanol, .alpha.-[[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)

MF C19 H23 N O2 . C1 H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (107758-11-2)

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

=> fil reg FILE 'REGISTRY' ENTERED AT 10:42:57 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d sta que 1102 L100 STR

VAR G1=H/51

REP G2=(1-3) CH2

REP G3=(0-1) O

VAR G4 = 35/64

VAR G5=OH/38/40

VAR G6=H/46

REP G7 = (1-3) C

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 39

CONNECT IS E1 RC AT 44

CONNECT IS E1 RC AT 51

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 32 8 25

NUMBER OF NODES IS 50

STEREO ATTRIBUTES: NONE

L102 75 SEA FILE=REGISTRY SSS FUL L100

100.0% PROCESSED 455 ITERATIONS

75 ANSWERS

SEARCH TIME: 00.00.02

=> d sta que 1105 L103 STR

=> d his 1102-

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L102 75 S L100 FUL
SAV L102 JKIM44531E/A
L103 STR L100
L104 17 S L103
L105 4534 S L103 FUL
SAV L105 JKIM44531F/A
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L106
                STR L103
L107
           4607 S L102 OR L105
L108
            50 S L106 CSS SAM SUB=L107
L109
           2224 S L106 CSS FUL SUB=L107
                SAV L109 JKIM44531G/A
L110
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L111
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     FILE 'HCAPLUS' ENTERED AT 10:35:48 ON 13 OCT 2002
L112
             10 S L111
L113
             10 S L112 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L114
              5 S L113 AND (1 OR 63)/SC, SX
L115
              3 S L111 (L) (THU OR BAC)/RL
L116
              6 S L114, L115
L117
              4 S L112 NOT L116
                SEL DN AN 2
              3 S L117 NOT E12-E14
L118
L119
              9 S L116, L118
     FILE 'REGISTRY' ENTERED AT 10:39:26 ON 13 OCT 2002
L120
           2222 S L109 NOT L110
L121
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L122
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           2818 S L121
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L124
            666 S L121 (L) THU/RL
L125
L126
            324 S L122, L123 AND 63/SC
            505 S L124-L126 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L127
           1213 S BETA 3 (L) ADRENOCEPTOR
L128
            886 S BETA 3 (L) ADRENERGIC (L) RECEPTOR
L129
L130
             24 S L127 AND L128, L129
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FILE 'REGISTRY' ENTERED AT 10:42:57 ON 13 OCT 2002

=> fil hcaplus

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FILE COVERS 1907 - 13 Oct 2002 VOL 137 ISS 16 FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d l130 bib abs hitrn retable tot

```
L130 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2002 ACS
     1999:282201 HCAPLUS
AN
DN
     130:311793
ΤI
     Preparation of amides as antidiabetics
IN
     Maruyama, Tatsuya; Suzuki, Takayuki; Onda, Kenichi; Hayakawa, Masahiko;
     Moritomo, Hiroyuki; Kimizuka, Tetsuya; Matsui, Tetsuo
     Yamanouchi Pharmaceutical Co., Ltd., Japan
PΑ
     PCT Int. Appl., 45 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     Japanese
LA
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                             DATE
                            -----
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     WO 9920607
                       A1
                            19990429
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                                                             19981015 <--
PΙ
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             SK, SL, TJ, TM, TR, TT, UA,
                                          lep for search
             KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ,
                                                                  DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU,
                                                                  CF, CG, CI,
                                             坐 Z
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             CM, GA,
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     AU 736676
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                                                                  1015 <--
                       AΑ
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     BR 9804500
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                       Α
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     EP 1028111
                       Α1
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     JP 3193706
                       B2
                                            JP 2000-516949
     CN 1218045
                       Α
                            19990602
                                            CN 1998-121375
                                                             19981016 <--
     US 6346532
                       В1
                            20020212
                                            US 2000-529096
                                                             20000407 <--
                                            NO 2000-1983
                                                             20000414 <--
     NO 2000001983
                       Α
                            20000414
PRAI JP 1997-285778
                       Α
                            19971017
                                       <--
     WO 1998-JP4671
                       W
                            19981015
os
     MARPAT 130:311793
GI
```

Ι

$$R^2$$
 $CH-CH_2-NH-C-A$
 R^1 ? R^1 ? R^1 ? R^1 ?

$$\begin{array}{c} \text{OH} \\ \text{Ph-CH-CH}_2 - \text{NH-CH}_2 - \text{CH}_2 \\ \\ \text{H}_2 \text{C} - \text{N} \\ \\ \text{Cl} \end{array} \quad \text{II}$$

AB The title compds. I [ring B = an optionally substituted heteroaryl optionally fused with a benzene ring; X = a bond, lower alkylene or lower alkenylene (optionally substituted by hydroxy or lower alkyl), carbonyl, or NH (further details related to X are given); A = a lower alkylene or a group represented by (lower alkylene)-O; Rla and Rlb = hydrogen or lower alkyl; R2 = hydrogen or halogeno; and Z = nitrogen or CH] are prepd. I are useful as diabetes remedies which not only function to accelerate the secretion of insulin and enhance insulin sensitivity but also have an anti-obesity action and an antihyperlipemic action based on their selective stimulative action on .beta.3 receptor. For example, imidazole deriv. II was prepd. Compds. of this invention significantly decreased blood sugar in mice.

TI223672-09-1P 223672-10-4P 223672-11-5P 223672-12-6P 223672-13-7P 223672-14-8P 223672-15-9P 223672-16-0P 223672-17-1P 223672-18-2P 223672-19-3P 223672-20-6P 223672-21-7P 223672-22-8P 223672-23-9P 223672-24-0P 223672-25-1P 223672-26-2P 223672-27-3P 223672-29-5P 223672-30-8P 223672-31-9P 223672-32-0P 223672-34-2P 223672-36-4P 223672-38-6P 223672-40-0P 223672-42-2P 223672-44-4P 223672-46-6P 223672-47-7P 223672-48-8P 223672-49-9P 223672-50-2P 223672-51-3P 223672-52-4P 223672-53-5P 223672-55-7P 223672-58-0P 223672-60-4P 223672-63-7P 223672-65-9P 223672-66-0P 223672-67-1P 223672-68-2P 223672-69-3P 223672-70-6P 223672-71-7P 223672-72-8P 223672-73-9P 223672-74-0P 223672-75-1P 223672-76-2P 223672-77-3P 223672-78-4P 223672-79-5P 223672-80-8P 223672-81-9P 223672-82-0P 223672-83-1P 223672-84-2P 223672-85-3P 223672-86-4P 223672-87-5P 223672-88-6P 223672-89-7P 223672-90-0P 223672-91-1P 223672-92-2P 223672-93-3P 223672-94-4P 223672-95-5P 223672-96-6P 223672-97-7P 223672-98-8P 223672-99-9P 223673-00-5P 223673-01-6P 223673-02-7P 223673-03-8P 223673-04-9P

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223673-05-0P 223673-06-1P 223673-07-2P 223673-08-3P 223673-09-4P 223673-10-7P 223673-11-8P 223673-12-9P 223673-13-0P 223673-14-1P 223673-15-2P 223673-16-3P 223673-17-4P 223673-18-5P 223673-20-9P 223673-21-0P 223673-22-1P 223673-23-2P 223673-26-5P 223673-30-1P 223673-31-2P 223673-32-3P 223673-38-3P 223673-58-3P 223673-59-4P 223673-60-7P 223673-61-8P 223673-62-9P 223673-66-3P
```

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of amides as antidiabetics)

RETABLE

Referenced Author (RAU)	Year VOL (RPY) (RVL)	(RPG)	eferenced Work (RWK)	Referenced File
Merck & Co Inc	1995	· ·	07-10827 A	HCAPLUS
Merck & Co Inc	1995	US	5553475 A	1
Merck & Co Inc	1995	IWO	93/19861 A1	1
Merck & Co Inc	1997	JP	09-512275 A	1
Merck & Co Inc	1997	US	5541197 A	HCAPLUS
Merck & Co Inc	1997	EP	757674 A1	HCAPLUS
Merck & Co Inc	1997	WO	95/29159 A1	HCAPLUS
Takeda Chem Ind Ltd	1996	JP	08-92228 A	HCAPLUS
Takeda Chem Ind Ltd	1996	US	5614544 A	HCAPLUS
Takeda Chem Ind Ltd	1996	EP	643050 A1	HCAPLUS

L130 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:32572 HCAPLUS

DN 130:76508

- TI Functional evidence for atypical .beta.-adrenoceptors in human-isolated taenia coli
- AU Kelly, J.; Sennitt, M. V.; Stock, M. J.; Arch, J. R. S.
- CS SmithKline Beecham Pharmaceuticals, Welwyn, AL6 9AR, UK
- SO Pharmacology Reviews and Communications (1998), 10(2), 143-152 CODEN: PHRCF6

curve to CGP 12177, again suggesting the involvement of

- PB Harwood Academic Publishers
- DT Journal
- LA English
 AB .beta.-
- .beta.-Adrenoceptor agonists displayed a rank order of potency for relaxation of spontaneous or K-induced tone in human isolated taenia coli of (-)-isoprenaline .gtoreq. noradrenaline > fenoterol = CGP 12177, CGP 12177 being a partial agonist. In the presence of a concn. of CGP 12177 (100 .mu.M) that exerted a max. effect, isoprenaline (100 .mu.M) had no further effect. The rodent .beta.3adrenoceptor agonist BRL-37344 had no effect and isoprenaline elicited a normal response in the presence of BRL-37344 (100 .mu.M). Isoprenaline-induced relaxations of spontaneous and carbachol-induced tone were antagonized by the selective .beta.1-adrenoceptor antagonist CGP 20712A (30 nM; apparent pA2 value=8.9) but not by the .beta.2-adrenoceptor antagonist ICI 118,551 (30 nM). .beta.1/.beta.2-adrenoceptor antagonist nadolol (1, 10, and 100 .mu.M) antagonized isoprenaline competitively with a pA2 value of only 6.7. This suggests that nadolol blocks the action of isoprenaline at a non-.beta.1/.beta.2-adrenoceptor (possibly a .beta. 3-adrenoceptor), although a component of .beta.1adrenoceptor antagonism may also be involved. Nadolol (1, 10, and 100 .mu.M) failed to produce any consistent shift of the concn.-response

non-.beta.1/.beta.2-adrenoceptors, although the lack of any antagonism by 100 .mu.M nadolol questions the role of .beta. 3-adrenoceptors. These results indicate a role for not only .beta.1- but also .beta.3 and/or so-called putative ".beta.4"-adrenoceptors in human taenia coli.

T 13392-18-2, Fenoterol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(selective .beta.-adrenoceptor agonists reaction in human taenia coli relaxation)

RETABLE

RETABLE						
	Year	•	-		Referenced	
• •	(RPY)			(RWK)	File	
	+===== 1948		+====== 586	+=====================================		
<u> </u>	1996		191	International Journa		
	1993		1663	Medical Research Rev		
	1984		1163		HCAPLUS	
	1997		1141	Pharmacology Reviews		
	1959		148	British Journal of P		
	1995		1223	European Journal of		
-	1990		831	British Journal of P		
·	1993		11094	Journal of Pharmacol		
	1991		315	Adrenoceptors Struct		
	1988		1723	British Journal of P		
	1964		1164	British Journal of P	MEDLINE	
	1996		1374	British Journal of P	HCAPLUS	
•	1980		2087		HCAPLUS	
	1972	-	283	Handbook of Experime		
- ·	1996	•	556	Journal of Clinical		
	1977	267	767	Journal of Physiolog		
	1971	41	426P	British Journal of P		
	1996	119	564	British Journal of P		
-	1996		2085	British Journal of P		
Kaumann, A	1996	1117	193	British Journal of P	HCAPLUS	
Kaumann, A	1997	118	170	Trends in Pharmacolo	HCAPLUS	
Kelly, J	1996	1120	207P	British Journal of P	1	
Kelly, J	1996	16	205	Journal of Autonomic	HCAPLUS	
Kirkham, D	1992	105	231P	British Journal of P		
	1993		1344	Journal of Clinical	HCAPLUS	
	1993		344	Life Sciences		
	1967		597	Nature	HCAPLUS	
Lemoine, H	1991	344	156	Naunyn-Schmiedeberg'		
Levy, B	1959	127	1150	Journal of Pharmacol	HCAPLUS	
	1997	18	351	Trends in Pharmacolo	HCAPLUS	
	1995		332	Fundamentals of Clin	HCAPLUS	
	1991		152P	British Journal of P		
•	1986	•	51	European Journal of		
	1997		647	Clinical and Experim		
	11996		229	Pharmacology Communi		
	1996		1	Journal Of Receptor		
	1997		1527	British Journal of P		
	11998		1084	J Pharmacol Exp Ther		
	11997		21244			
	11984		1309	European Journal of		
Wilson, S	1996	1279	214	Journal of Pharmacol	HCAPLUS	

L130 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:784989 HCAPLUS

DN 130:134103

TI The effects of the .beta.3-adrenoceptor agonist BRL 35135 on UCP isoform mRNA expression

- ΑU Emilsson, Valur; Summers, Roger J.; Hamilton, Stephanie; Liu, Yong-Ling; Cawthorne, Michael A.
- CS Clore Laboratory, University of Buckingham, Buckingham, MK18 1EG, UK
- SO Biochemical and Biophysical Research Communications (1998), 252(2), 450-454 CODEN: BBRCA9; ISSN: 0006-291X
- ₽B Academic Press
- DT Journal
- English LA
- AB The mitochondrial uncoupling protein UCP-1 uncouples respiration from ATP synthesis in brown adipose tissue (BAT) and thus energy is dissipated as heat. Recently two further isoforms have been identified which may play a similar role in other tissues. We have detd. the effects of the rodent-selective .beta.3-adrenoceptor (. beta.3-AR) agonist BRL 35135, on .beta. 3-AR and UCP mRNA levels in tissues from lean and obese (fa/fa) Zucker rats. .beta.3-AR mRNA levels were reduced in fa/fa white (WAT) and brown (BAT) adipose tissue relative to levels in lean littermates. BRL 35135 treatment increased expression levels of .

beta.3-AR mRNA in both genotypes. UCP-2 and UCP-3 mRNA levels in BAT, WAT and skeletal muscle were reduced by 2-3 fold in the fa/fa rats relative to the lean rats. We confirm that BRL 35135 increases BAT UCP-1 mRNA in lean rats, and find that BAT UCP-3 mRNA was reduced 3.2 $\,$ fold, with no changes in UCP-2 expression. In WAT BRL 35135 increased UCP-2 and UCP-3 expression 2-3 fold in both lean and fa/fa rats. rats, skeletal muscle UCP-3 mRNA was increased 2.3 fold by BRL 35135 whereas UCP-2 was reduced by 2.2 fold. BRL 35135 had no effects on UCP-2 and UCP-3 expression in skeletal muscle of the fa/fa rats. Our results demonstrate that mechanisms regulating UCP isoform synthesis in fa/fa rats are impaired and that WAT could be involved in the thermogenic response of BRL 35135. (c) 1998 Academic Press. **86615-96-5**, BRL 35135

ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(.beta.3-adrenoceptor agonist BRL 35135 effect on UCP isoform mRNA expression)

RETABLE

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Hidaka, S	1998	123	178	Biochim Biophys Acta	1
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Krook, A	1998	147	11528	Diabetes	HCAPLUS
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                        11998 | 47
                                     1298
                                             |Diabetes
                                                                   HCAPLUS
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                         11984 | 4
                                     1309
                                             |Eur J Pharmacol
                                                                   П
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L130 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:535771 HCAPLUS

DN 129:198012

- TI Preparation of phenethanol derivatives and their use as antidiabetic agents
- IN Maruyama, Tatsuya; Onta, Kenichi; Hayakawa, Akihiko; Matsui, Tetsuo
- PA Yamanouchi Pharmaceutical Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PΙ

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10218861	A2	19980818	JP 1997-21870	19970204 <

OS MARPAT 129:198012

GI For diagram(s), see printed CA Issue.

- AB The derivs. I [ring B = II, III, IV; X, Y = O, S, NR6; R1 = H, lower alkyl; R2 = H, lower alkyl, NHSO2Me, NHCOR3; R3 = H, lower alkyl, mono- or di(lower alkylamino), aryl, aralkyl; R4, R5 = H, lower alkyl, amino; R6 = H, lower alkyl, aralkyl] or their salts as .beta.3-adrenoceptor agonists are prepd. Antidiabetic agents contg. I or thir salts as active ingredients are also claimed. I decreased blood glucose of obese and hyperglycemic kk mice with insulin resistance upon both oral and percutaneous administrations. I also increased insulin secretion in normal rats. Prepn. of some of I was given.
- IT 211636-04-3P 211636-05-4P 211636-06-5P 211636-07-6P 211636-08-7P 211636-09-8P 211636-10-1P 211636-11-2P 211636-13-4P 211636-17-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of antidiabetic phenethanol derivs. as .beta.

3-adrenoceptor agonists)

L130 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:471470 HCAPLUS

DN 129:108907

- TI Preparation of N-[3-(2-aralkylamino-1-hydroxyethyl)phenyl]methanesulfonami des and analogs as .beta.3 adrenoceptor agonists
- IN Washburn, William N.; Girotra, Ravindar N.; Sher, Philip M.; Mikkilineni, Amarendra B.; Poss, Kathleen M.; Mathur, Arvind; Bisacchi, Gregory S.; Gavai, Ashvinikumar V.
- PA Bristol-Myers Squibb Co., USA

SO U.S., 79 pp., Cont.-in-part of U. S. Ser. No. 171,285, abandoned. CODEN: USXXAM

DT Patent LA English FAN.CNT 2

GΙ

PAN.	CN1 Z					
	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	US 5776983	Α	19980707		US 1994-346543	19941202 <
	TW 424082	В	20010301		TW 1994-83111890	19941219 <
	HU 72302	A2	19960429		HU 1994-3694	19941220 <
	HU 220063	В	20011028			
	CA 2138675	AA	19950622		CA 1994-2138675	19941221 <
	FI 9406003	Α	19950622		FI 1994-6003	19941221 <
	NO 9404969	Α	19950622		NO 1994-4969	19941221 <
	AU 9481635	A1	19950629		AU 1994-81635	19941221 <
	AU 688417	B2	19980312			
	JP 07206806	A2	19950808		JP 1994-336251	19941221 <
	CN 1109050	A	19950927		CN 1994-113297	19941221 <
•	ZA 9410213	Α	19960621		ZA 1994-10213	19941221 <
PRAI	US 1993-171285	B2	19931221	<		
os	MARPAT 129:10890					

R1SO2NHZ1CH(OH)CHR6NHCR3R4Z2R2 [R1 = alkyl or aryl(alkyl); R2 = (un)substituted Ph; R3 = H, alkyl, heterocyclyl, etc.; R4 = H, alkyl, etc.; R6 = H or alkyl; Z1 = (un)substituted 1,3-phenylene; Z2 = bond, (acyl)methylene, (CH2)2-3] were prepd. as .beta.3
adrenoceptor agonists (no data). Thus, 3,4-(MeO)2C6H3CH(NH2)CH2Ph was N-alkylated by 4,3-(PhCH2O)(MeSO2NH)C6H3COCH2Br (prepn. each given) to give, after hydrogenation, title compd. I.

Ι

ΙT 170685-57-1P 170685-58-2P 170685-59-3P 170685-60-6P 170685-61-7P 170685-62-8P 170685-63-9P 170685-64-0P 170685-65-1P 170685-66-2P 170685-67-3P 170685-68-4P 170685-69-5P 170685-75-3P 170685-78-6P 170685-80-0P 170685-82-2P 170685-83-3P 170685-84-4P 170685-85-5P 170685-86-6P 170685-87-7P 170685-88-8P 170685-89-9P 170685-93-5P 170685-97-9P 170685-98-0P 170686-01-8P 170686-02-9P 170686-03-0P 170686-04-1P 170686-05-2P 170686-06-3P 170686-07-4P 170686-08-5P 170686-09-6P 170686-10-9P 170686-11-0P 170686-13-2P 170686-14-3P 170686-15-4P 170686-16-5P 170686-17-6P 170686-24-5P 170686-25-6P 170686-30-3P 170686-33-6P 170686-34-7P 170686-35-8P 170686-36-9P 170686-37-0P 170686-38-1P 170686-39-2P 170686-40-5P 170686-41-6P 170686-42-7P 170686-43-8P 170686-44-9P 170686-45-0P 170686-46-1P

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170686-47-2P 170686-58-5P 170686-59-6P
170686-60-9P 170686-62-1P 170686-63-2P
170686-64-3P 170686-65-4P 170686-66-5P
170686-67-6P 170686-68-7P 170686-69-8P
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170686-97-2P 170686-98-3P 170686-99-4P
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170687-03-3P 170687-04-4P 170687-05-5P
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170687-13-5P 170687-14-6P 170687-15-7P
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170687-66-8P 170687-67-9P 209914-79-4P
209914-83-0P 209914-84-1P 209914-86-3P
209914-87-4P 209914-89-6P 209914-91-0P
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209914-97-6P 209914-98-7P 209915-09-3P
209915-16-2P 209915-17-3P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of N-[3-(2-aralkylamino-1-hydroxyethyl)phenyl]methanesulfonamid es and analogs as .beta.3 adrenoceptor agonists)

RETABLE

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Anon	1971	1	DE 2048555	HCAPLUS
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Anon	1976	1	JP 53002443	HCAPLUS
Anon	1981	1	EP 0023385 .	HCAPLUS
Anon	1983	1	ZA 837012	1
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Anon	1993	ļ	EP 556880	HCAPLUS
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Buu-Hoi	1976	1	US 3954871	HCAPLUS
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Gould	11971	1	1	US 3574741	1
Holloway	11988	1	İ	US 4772631	HCAPLUS
Jack	11972	1	1	US 3689524	HCAPLUS
Jack	11974	1	1	US 3803230	HCAPLUS
Lambelin	11987	1	1	US 4638070	HCAPLUS
Larsen	11967	1	1	US 3341584	1
Larsen	11972	1		US 3660487	HCAPLUS
Larsen	11967	10	462	J Med Chem	HCAPLUS
Lunts	11972	1	1	US 3705233	HCAPLUS
Lunts	1973			US 3732300	1
Lunts	1977	1		US 4012444	HCAPLUS
Lunts	1978	1		US 4066755	1
Sugihara	1977			US 4035512	1

L130 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:356059 HCAPLUS

DN 129:90214

- TI Differential regulation of uncoupling proteins by chronic treatments with .beta.3-adrenergic agonist BRL 35135 and metformin in obese fa/fa Zucker rat
- AU Savontaus, Eriika; Rouru, Juha; Boss, Olivier; Huupponen, Risto; Koulu, Markku
- CS Department of Pharmacology, University of Turku, Turku, Finland
- SO Biochemical and Biophysical Research Communications (1998), 246(3), 899-904 CODEN: BBRCA9; ISSN: 0006-291X
- PB Academic Press
- DT Journal
- LA English
- The expressions of uncoupling proteins 2 and 3 (UCP2; UCP3) mRNA were studied in obese (fa/fa) Zucker rats treated with two wt. gain reducing agents for three weeks. The specific .beta.3adrenoceptor agonist BRL 35135 (0.5 mg/kg/day orally) increased the expression of UCP3 mRNA by 3.8-fold (P < 0.0001; two-way ANOVA) and that of UCP1 mRNA by 2.6-fold (P = 0.014) in brown adipose tissue, but had no effect on expression of UCP3 mRNA in white fat or in the soleus muscle, or on UCP2 mRNA expression in brown or white fat. The antihyperglycemic metformin (300 mg(kg/day orally) had no effect on expressions of UCP1, UCP2 or UCP3 in any tissue studied. Concns. of plasma insulin were significantly correlated with the levels of white fat UCP2 mRNA (in the control group: r = 0.89, P = 0.0015) and UCP3 mRNA (in the control group: r = 0.80, P = 0.009) suggesting that insulin may play a role in the control of UCP2 and UCP3 mRNA expressions in white adipose tissue.
- L130 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2002 ACS
- AN 1997:752946 HCAPLUS
- DN 128:34758
- TI Preparation of 1, 3-benzodioxole-2,2,-dicarboxylates as .beta.
 3-adrenoceptor agonists
- IN Gilbert, Adam Matthew; Grosu, George Theodore; Malamas, Michael Sotirios; Sum, Fuk Wah; Venkatesan, Aranapakam Mudumbai; Francisco, Gerardo De La Cruz
- PA American Home Products Corporation, USA
- SO PCT Int. Appl., 105 pp. CODEN: PIXXD2
- DT Patent
- LA English

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FAN.CNT 1
                      KIND DATE
     PATENT NO.
                                           APPLICATION NO.
                                                            DATE
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ΡI
    WO 9743273
                      Α1
                            19971120
                                           WO 1997-US8148
                                                            19970505 <--
        W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS,
             JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO,
             RU, SG, SI, SK, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
             GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
                            19971120
    CA 2254120
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                                           CA 1997-2254120
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                       Α1
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                            20010308
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                            19990317
                                           EP 1997-924720
                                                            19970505 <--
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
             SI, LT, LV, FI, RO
    BR 9708948
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                                                            19970509 <--
                      Α
    JP 2000510150
                       T2
                            20000808
                                           JP 1997-541097
                                                            19970509 <--
                                          · KR 1998-709151
    KR 2000011001
                       Α
                            20000225
                                                            19981113 <--
PRAI US 1996-645970
                       Α
                            19960514
                                      <--
    WO 1997-US8148
                       W
                            19970505
                                      <--
    MARPAT 128:34758
OS
GΙ
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$$\begin{array}{c|c}
R & O & R7 \\
\hline
R & O & R8
\end{array}$$

AB Title compds. [I; R = R1CH(OR2)CH2NR3CR4R5CH2; R1 = (un)substituted Ph; R2
= H or trialkylsilyl; R3 = H or alkoxycarbonyl; R2R3 = CH2, alkylidene,
arylmethylene; R4,R5 = H or allyl; R6 = H, halo, alkyl, alkoxy, etc.;
R7,R8 = OR9, NR1OR11; R9 = H, alkyl, aryl(alkyl), etc.; R1O,R11 = H,
alkyl, aryl(alkyl), etc.] were prepd. Thus, I [R = 3C1C6H4CH(OH)CH2NHCHMeCH2, R6 = H](II; R7 = R8 = OH) was esterified by
MeOCH2CH2OH to give II (R7 = R8 = OCH2CH2OMe). Data for biol. activity of
I were given.

IT 199669-72-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of 1, 3-benzodioxole-2,2-dicarboxylates as .beta.

3-adrenoceptor agonists)

L130 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2002 ACS

Ι

AN 1997:482928 HCAPLUS

DN 127:199880

 ${\tt TI}$ Chronic treatment with BRL 35135 potentiates the action of insulin on lipid metabolism

AU Virtanen, Kirsi A.; Rouru, Juha; Haenninen, Virve; Savontaus, Eriika; Rouvari, Taina; Teirmaa, Tomi; Koulu, Markku; Huupponen, Risto

CS Department of Pharmacology and Clinical Pharmacology, University of Turku, Kiinanmyllynkatu 10, Turku, FIN-20520, Finland

SO European Journal of Pharmacology (1997), 332(2), 215-218 CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier

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Journal
DT
     English
LA
AΒ
     The effects of a .beta.3-adrenoceptor
     agonist on insulin-induced changes in lipid metab. were studied in obese
     male Zucker (fa/fa) rats during euglycemic clamp. Rats were treated with
     BRL 35135 (R,R-(.+-.)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)-ethyl-
     amino]-propyl]-phenoxyacetate hydrobromide) (0.5 mg/kg per day in drinking
     water) for three weeks before an euglycemic hyperinsulinemic clamp was
     performed. Insulin infusion lowered serum non-esterified fatty acids and
     plasma glycerol more efficiently in BRL 35135-treated than in control rats
     although plasma insulin remained significantly lower in the BRL
     35135-treated than in the control rats during the clamp. In conclusion,
     chronic treatment with BRL 35135 potentiates the effect of insulin on
     lipid metab.
    86615-96-5, BRI 35135
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (chronic treatment with .beta.3-
        adrenoceptor agonist BRL 35135 potentiates insulin action on
        lipid metab.)
L130 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2002 ACS
     1996:725349 HCAPLUS
AN
DN
     126:26853
     Treatment of glawcoma and ocular hypertension with .beta.3-adrenergic
TΙ
     agonists
ΙN
     Brazzell, Romulus K.; Dubnick, Bernard
     American Cyanamid Company, USA
PA
SO
     U.S., 7 pp.
     CODEN: USXXAM
\mathsf{DT}
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                           APPLICATION NO.
                                                            DATE
                           -----
     US $578638
                      Α
                            19961126
                                           US 1993-148154
                                                            19931105 <--
                      A
     ZA 9408742
                            19950710
                                           ZA 1994-8742
                                                            19941104 <--
                            19931105 <--
PRAI US 1993-148154
     This invention relates to a method of treating glaucoma or reducing
     intraocular pressure in a patient in need of such treatment which is based
     on the topical administration to the eye of a mammal or the systemic
     administration of .beta.2-adrenergic agonists such as di-Na
     (R,R)-7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-7,8-dihydro-6H-
     indeno[4,3-d]-1,3-dioxole-2,2-dicarboxylate.
ΙT
     127299-93-8
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (glaucoma and ocular hypertension treatment with .beta.3-adrenergic
        agonists)
L130 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2002 ACS
ΑN
     1996:688208 HCAPLUS
DN
ΤI
     Rapid inhibition of ob gene expression and circulating leptin levels in
     lean mice by the .beta.3-adrenoceptor
     agonists BRL 35135A and ZD2079
ΑU
     Trayhurn, Paul; Duncan, Jacqueline S.; Rayner, D. V.; Hardie, Laura J.
     Division Biochemical Sciences, Rowett Research Institute, Bucksburn,
CS
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SO Biochemical and Biophysical Research Communications (1996), 228(2), 605-610

Aberdeen, AB21 9SB, UK

CODEN: BBRCA9; ISSN: 0006-291X

- PB Academic
- DT Journal
- LA English
- AB The acute effect of two selective .beta.3adrenoceptor agonists, BRL 35135A and ZD2079, on the expression of
 the ob gene and plasma leptin levels has been examd. in mice. By 4-5 h
 after the administration of either .beta.3-agonist to
 lean animals there was a major loss of ob mRNA from epididymal white
 adipose tissue. This was accompanied by a substantial fall in circulating
 leptin levels, as measured by an ELISA. Even 24 h after the first
 administration of .beta.3-agonists, ob mRNA levels and
 circulating leptin levels remained low. In contrast to lean animals,
 treatment with BRL 35135A had only a minor effect on ob mRNA levels in
 obese (ob/ob) mice. Regulation of leptin prodn. appears to involve a neg.
 feedback loop to white adipose tissue through the sympathetic nervous
 system suppressing ob gene transcription via .beta.3adrenoceptors; an impairment in this loop is evident in the ob/ob
 mutant.
- IT 86615-41-0, BRL 35135A 178600-17-4, ZD2079
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (.beta.3-adrenoceptor agonists BRL 35135A and ZD2079 inhibition of ob gene expression and leptin level in lean vs. obese mice)
- L130 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2002 ACS
- AN 1996:671324 HCAPLUS
- DN 125:317095
- TI Improvement of metabolic disorders and visceral fat obesity by the . beta.3-adrenoceptor agonist $(R^*,R^*)-(+)-\text{methyl-}4-[2-[2-\text{hydroxy-}2-(3-\text{chlorophenyl})\,\text{ethylamino}]\,\text{propyl}]-\text{phenoxyacetate hydrobromide (BRL35135A) in genetically obese rodents}$
- AU Hashimoto, Koji; Nagao, Yuji; Ida, Keiichi; Takeda, Mitsuhiro; Murakami, Nobuya; Kato, Katsuaki; Mizota, Masahiro
- CS Department of Pharmacology, Mochica Pharmaceutical Co., Ltd., Tokyo, 115, Japan
- SO Biochemical Pharmacology (1996), 52(10), 1529-1535 CODEN: BCPCA6; ISSN: 0006-2952
- PB Elsevier
- DT Journal
- LA English
- AB The effects of BRL35135A ((R*,R*)-(+)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetate hydrobromide), a . beta.3-adrenoceptor agonist, on visceral and

s.c. fat wt. and metabolic disorders were studied in genetically obese C57BL/KsJ db/db mice and Zucker fa/fa rats. In db/db mice, four weeks of oral administration of BRL35135A (0.5 and 5 mg/kg/day) decreased body wt. gain and reduced white fat wt. The rates of redn. of white fat wt. were in the order mesenteric fat > retroperitoneal fat > s.c. fat. In fa/fa rats, daily administration of BRL35135A (0.05 mg/kg/day) for 6 wk reduced the visceral white fat wt./total energy intake ratio, particularly for mesenteric fat, without any clear effect on body wt. gain. This tendency of the compd. to exert effects on visceral fat was consistent with the findings that the effect of BRL37344 ((R*,R*)-(+)-methyl-4-[2[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetic acid), an active metabolite of BRL35135A, on the lipolytic activity of isolated adipocytes and the tissue concn. of [14C]BRL37344 in male Wistar rats were each greater in visceral fat than in s.c. fat. Moreover, BRL35135A at 0.05 mg/kg/day elevated serum insulin levels and improved hyperglycemia in db/db mice without reducing body wt. gain, whereas at doses of 0.5 and 5 mg/kg/day it ameliorated hyperglycemia and hyperlipidemia, and tended to

decrease serum insulin levels. In fa/fa rats, BRL35135A (0.005 mg/kg/day) was also effective in improving hyperinsulinemia, glucose intolerance, and hypertriglyceridemia without any effect on body wt. gain or fat distribution. These findings suggest that the improvement of metabolic disorders by BRL35135A may be due to improvement in insulin resistance as well as redn. of visceral fat wt.

IT **86615-41-0**, BRL35135A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(improvement of metabolic disorders and visceral fat <u>obesity</u> by .beta.3-adrenoceptor agonist BRL35135A in genetically obese rodents)

L130 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:628808 HCAPLUS

DN 125:316209

TI BMS-187257, a potent, selective, and novel heterocyclic .beta.

3 adrenergic receptor agonist

AU Fisher, Liesl G.; Sher, Philip M.; Skwish, Stephen; Michel, Inge M.; Seiler, Steven M.; Dickinson, Kenneth E. J.

CS Bristol-Myers Squibb Pharmaceutical Institute, Princeton, NJ, 08543-4000, USA

SO Bioorganic & Medicinal Chemistry Letters (1996), 6(19), 2253-2258
CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier

DT Journal

LA English

GΙ

AB Novel heterocyclic .beta.3 adrenergic
receptor agonists were prepd. and evaluated for their ability to
bind to human .beta.1, .beta.2, and .beta.3
adrenergic receptors. Stimulatory effects on the .
beta.3 adrenergic receptor were also
measured. The 2,5-disubstituted thiazole BMS-187257 (I) was four

measured. The 2,5-disubstituted thiazole BMS-187257 (I) was found to be a potent and selective .beta.3 agonist.

IT **90730-96-4P**, BRL37344

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of arylalkanolamine thiazoles as selective .beta.
3 adrenergic receptor agonist)

L130 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:616601 HCAPLUS

DN 125:275666

TI Preparation of pyridyl-substituted sulfonamides as selective .beta

.3 adrenergic receptor agonists for the

treatment of type II diabetes and obesity

IN Fisher, Michael H.; Naylor, Elizabeth M.; Ok, Dong; Weber, Ann E.; Shih, Thomas; Ok, Hyun

Merck and Co., Inc., USA PΑ

SO U.S., 35 pp., Cont.-in-part of U.S. Ser. No. 404,565, abandoned. CODEN: USXXAM

DTPatent

LA English

FAN.	CNT 4					
	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	US 5561142	Α	19961001		US 1995-445630	19950522 <
	US 5705515	Α	19980106		US 1996-684901 .	19960725 <
PRAI	US 1994-233166	B2	19940426	<		
	US 1995-404565	B2	19950321	<	,	
	US 1995-445630	A2	19950522	<		
os	MARPAT 125:27566	6				
GI						

Ι

AB The title compds. [I; A = pyridinyl; R1 = OH, O, halo, etc.; R2, R3 = H, C1-10 alkyl, C1-10 alkoxy, etc.; X = CH2, (CH2)2, CH:CH, CH2O; R4, R5 = H, C1-10 alkyl, halo, etc.; R6 = H, C1-10 alkyl; R7 = (substituted) Ph, naphthyl, a 5- or 6-membered heterocyclic ring, etc.; n = 0-5; m = 0-1; r = 0-3], selective .beta.3 adrenergic receptor agonists and therefore useful in the treatment of type II diabetes and obesity as well as neurogenic inflammation, depression, gastrointestinal disorders, gut motility and as lowering triglyceride and cholesterol levels agents, were prepd. by coupling an aminoalkylphenylsulfonamide with an appropriately substituted epoxide. Thus, refluxing (R)-(pyrid-3-yl)oxirane with N-[4-(2-aminoethyl)phenyl]-4-[5-(3-cyclopentylpropyl)[1,2,4]-oxadiazol-3-yl]benzenesulfonamide in dry MeOH afforded the desired product (R)-II. Compds. I were effective at 0.07-350 mg/day when treating diabetes mellitus and/or hyperglycemia.

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173902-22-2P 173902-24-4P 173902-26-6P
ΙT
     173902-30-2P 173902-31-3P 173902-32-4P
     173902-33-5P 173902-34-6P 173902-35-7P
     173902-36-8P 173902-37-9P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
     use); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of pyridyl-substituted sulfonamides as selective .beta.
        3 adrenergic receptor agonists for the
        treatment of type II diabetes and obesity)
L130 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2002 ACS
ΑN
     1996:494735 HCAPLUS
DN
     125:221588
TΙ
     Substituted sulfonamides as selective .beta.3 agonists for the treatment
     of diabetes and obesity
IN
     Fisher, Michael H.; Naylor, Elizabeth M.; Weber, Ann E.
PA
     Merck and Co., Inc., USA
     U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 233,166, abandoned.
SO
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 4
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO. DATE
                                            US 1995-404566
                            19960730
PΙ
     US 5541197
                       Α
                                                              19950321 <--
     IL 113410
                       A1
                             19991130
                                            IL 1995-113410
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                                                             19950421 <--
                                            WO 1995-US4956
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                            19951102
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         RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
             SN, TD, TG
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                                            EP 1995-917116
                                                              19950421 <--
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                                            HU 1996-2951
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                                            ZA 1995-3336
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PRAI US 1994-233166
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     US 1995-404566
                       Α
                             19950321
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     WO 1995-US4956
                       W
                             19950421
                                       <--
OS
     MARPAT 125:221588
GΙ
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^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Substituted sulfonamides I wherein: n is 0-5; m is 0 or 1; p is 0-3; ring A is (1) a 5 or 6-membered heterocyclic ring with from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen, (2) a benzene ring fused to a 5 or 6-membered heterocyclic ring with from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen, (3) a 5 or 6-membered heterocyclic ring with

from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen fused to a 5 or 6-membered heterocyclic ring with from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen, (4) Ph, or (5) a benzene ring fused to a C3-8 cycloalkyl ring; R1 is, e.g., OH, oxo, halo; R2 and R3 are independently (1) hydrogen, (2) C1-C10 alkyl or (3) C1-C10 alkyl with 1 to 4 substituents selected from hydroxy, C1-C10 alkoxy, and halogen; X is(1) CH2, (2) CH2CH2, (3) CH:CH, or (4) CH2O; R4 and R5 are independently, e.g., hydrogen, C1-C10 alkyl, halogen; R6 is (1) hydrogen or (2) C1-C10 alkyl; R7 is Z-(R1a)n; R1a is, e.g., R1 (with proviso), C3-8 cycloalkyl, optionally substituted Ph; Z is, e.g., Ph, naphthyl, heterocyclic, are selective .beta.3 adrenergic $\textbf{receptor} \ \textbf{agonists} \ \textbf{with} \ \textbf{very little .beta.1} \ \textbf{and .beta.2}$ adrenergic receptor activity and as such the compds. are capable of increasing lipolysis and energy expenditure in cells (no data). The compds. thus have potent activity in the treatment of Type II diabetes and obesity. The compds. can also be used to lower triglyceride levels and cholesterol levels or raise high d. lipoprotein levels or to decrease gut motility. In addn., the compds. can be used to reduced neurogenic inflammation or as antidepressant agents. Compns. and methods for the use of the compds. in the treatment of diabetes and obesity and for lowering triglyceride levels and cholesterol levels or raising high d. lipoprotein levels or for increasing gut motility are also disclosed. Thus, e.g., ring cleavage of (R)-2-(tetrazolo[1,5-a]pyrid-6-yl)oxirane with 2-(4-aminophenyl)ethylamine followed by Boc protection afforded amino alc. II; chlorosulfonylation of N-hexyl-N'-phenylurea (from hexylamine + Ph isocyanate) provided N-hexyl-N'-(4-chlorosulfonylphenyl)urea III; coupling of II + III followed by deprotection afforded sulfonamide IV. 173900-55-5P 173900-57-7P 173900-58-8P 173900-59-9P 173900-60-2P 173900-61-3P 173900-62-4P 173902-22-2P 173902-24-4P 173902-26-6P 173902-30-2P 173902-31-3P 173902-32-4P 173902-33-5P 173902-34-6P 173902-35-7P 173902-36-8P 173902-37-9P 180973-82-4P 180973-83-5P 180973-84-6P 180973-85-7P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (substituted sulfonamides as selective .beta.3 agonists for the treatment of diabetes and obesity) L130 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2002 ACS 1996:343723 HCAPLUS 125:75996 Effects of several putative .beta.3adrenoceptor agonists on lipolysis in human omental adipocytes Hoffstedt, J.; Loennqvist, F.; Shimizu, M.; Blaak, E.; Arner, P. Department of Medicine, Huddinge University Hospital, Huddinge, S-14186, International Journal of Obesity (1996), 20(5), 428-434 CODEN: IJOBDP; ISSN: 0307-0565 Stockton Journal English Atypical .beta.3-adrenoceptor agonists have attained an increasing interest as potential drugs against obesity and diabetes. However, their pharmacol. actions on the native, human. beta.3-adrenoceptor are not well defined. In the present study, the lipolytic effects of several putative .beta .3-adrenoceptor agonists were investigated in human omental adipocytes. CL 316 243 and CGP 12177 had selective partial . beta.3-agonist effects (pD2 about 4 and 8, resp.); the

latter drug is a .beta.1-/.beta.2-adrenoceptor blocker in addn.

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to its .beta.3-adrenoceptor agonist
     activity. BRL 37344 and SM 11044 were also partial agonists, but with
     significant .beta.1 - and/or .beta.2-adrenoceptor agonist
     properties. Bucindolol, ZD 2079, ICI D7114 and SR 58611A were ineffective
     as lipolytic drugs. In addn., ICI D7114 was a non-selective
     .beta.1-/.beta.2-/.beta.3-adrenoceptor
     antagonist in human adipocytes. None of the .beta.3-
     adrenoceptor agonists tested is an ideal drug for therapeutic use
     in man (i.e. regarded as a selective and full agonist with high receptor
     potency). Only CL 316 243 may have a potential therapeutic role, although
     the potency is very low. CGP 12177 is useful as a ref. substance for
     human in vitro studies.
     90730-96-4, BRL 37344 178600-17-4, ZD 2079
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (putative .beta.3-adrenoceptor agonists
        effect on lipolysis in human omental adipocytes in relation to obesity
        treatment)
L130 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2002 ACS
     1996:271822 HCAPLUS
     125:1405
     Use of 2-hydroxy-2-phenylethylaminoethoxyphenylacetate as .beta.
     3-adrenoceptor agonists
     Holloway, Brian R.; Howe, Ralph; Rao, Balbir S.
     Zeneca Ltd., UK
     U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 889,186, abandoned.
     CODEN: USXXAM
     Patent
     English
FAN.CNT 2
                      KIND DATE
     PATENT NO.
                                            APPLICATION NO. DATE
                      A
     US 5502078
                            19960326
                                            US 1993-57763
                                                             19930507 <--
PRAI GB 1991-11425
                            19910528 <--
19920528 <--
     GB 1991-11425 A
US 1992-889186 B2
     CASREACT 125:1405; MARPAT 125:1405
     3,5-Substituted-C6H3-CH(OH)CH2NHCH2CH2O-p-C6H4-CH2CO2H and bioprecursors
     and pharmaceutically acceptable salts thereof are described as .
     beta.3-adrenoceptor agonists having
     anti-obesity, hypoglycemic and related therapeutic utilities.
     (R)-4-[2-[2-(3-chlorophenyl)-2-hydroxyethylamino]ethoxy]phenylacetic acid
     and its HCl salt are claimed.
     146520-46-9P 146520-47-0P 146520-48-1P
     146520-50-5P 146520-51-6P 146520-52-7P
     146520-53-8P 146520-54-9P 177288-18-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
     use); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (2-hydroxy-2-phenylethylaminoethoxyphenylacetates as .beta.
        3-adrenoceptor agonists)
L130 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2002 ACS
     1996:203512 HCAPLUS
     124:278730
     Biphasic effects of the .beta.-adrenoceptor agonist, BRL 37344, on glucose
     utilization in rat isolated skeletal muscle
     Liu, Yong-Ling; Cawthorne, Michael A.; Stock, Michael J. Dep. Physiol., St. George's Hosp. Med. Sch., London, SW17 ORE, UK
     British Journal of Pharmacology (1996), 117(6), 1355-61
     CODEN: BJPCBM; ISSN: 0007-1188
     Stockton
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DT Journal
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AB

LA English

The effects of the selective .beta.3adrenoceptor agonist, BRL 37344 (BRL) on glucose uptake and phosphorylation (i.e. glucose utilization; GU) and glycogen synthesis in rat isolated soleus and extensor digitorium longus (EDL) muscle prepns. in vitro were investigated by use of 2-deoxy-[3H]-glucose (GU) and [U-14C]-glucose (glycogen synthesis). Low concns. of BRL (10-11-10-9 M) significantly increased GU, with maximal increases of 30% in soleus and 24% in EDL at 10-11 M. Neither the selective .beta.1-adrenoceptor antagonist, atenolol (10-8-10-6 M), nor the selective .beta.2-adrenoceptor antagonist, ICI 118551 (10-8-10-6 M) had any effect on the stimulation of GU induced by 10-11 M BRL. High concns. of BRL (10-6-10-5 M) caused significant inhibition (up to 30%) of GU in both soleus and EDL muscles. The inhibition at 10-6 M BRL was blocked completely by 10-6 and 10-7 M ICI 118551 in soleus, and by 10-6-10-8 M ICI 118551 in EDL; atenolol (10-8-106 M) had no effect. Another selective . beta.3-adrenoceptor agonist, CL 316,243, also caused a significant stimulation of muscle GU, with maximal increases of 43% at 10-9 M in soleus and 45% at 10-10 M in EDL. The stimulation of GU $\,$ declined with further increases in the concn. of CL 316,243, but no inhibition of GU was seen, even at the highest concn. (10-5 M) tested. BRL at 10-5 M inhibited completely insulin-stimulated glycogen synthesis in both soleus and EDL, but this inhibitory effect of BRL was abolished by 10-6 M ICI 118551. BRL at 10-11 M (with or without 10-6 M ICI 118551) had no effect on insulin-stimulated glycogen synthesis. It is concluded that: (i) low (<nM) concns. of BRL stimulate GU via an atypical .beta.adrenoceptor that is resistant to conventional .beta.1adrenoceptor and .beta.2-adrenoceptor antagonists; (ii) the stimulation of GU is negated by the activation of .beta.2adrenoceptors that occurs at higher (>nM) concns. of BRL; (iii) inhibition of GU via .beta.2-adrenoceptor activation is assocd. with inhibition of glycogen synthesis, possibly due to activation of glycogenolysis; (i.v.) the opposing effects of .beta.2adrenoceptor and atypical .beta.-adrenoceptor activation on GU suggest that in skeletal muscle these adrenoceptors are linked to different post-receptor pathways.

IT **90730-96-4**, BRL37344

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(biphasic effects of the .beta.-adrenoceptor agonist, BRL 37344, on glucose utilization in rat isolated skeletal muscle)

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L130 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2002 ACS
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AN 1996:94552 HCAPLUS

DN 124:194133

TI Comparison of the profiles of agonists as stimulants of the .beta .3-adrenoceptor in vitro with their gastroprotective effects in the conscious rat

AU Bahl, A. K.; Clayton, N. M.; Coates, J.; Martin, D. P.; Oakley, I. G.; Strong, P.; Trevethick, M. A.

CS Glaxo Wellcome Research & Development Ltd., Glaxo Wellcome Medicines Centre, Stevenage, Herts, SG1 2NY, UK

SO British Journal of Pharmacology (1996), 117(3), 580-6 CODEN: BJPCBM; ISSN: 0007-1188

- PB Stockton
- DT Journal
- LA English

AB This paper compares the activity of a range of agonists as stimulants of the .beta.3-adrenoceptor in rat isolated esophagus with their ability to afford protection against indomethacin-induced gastric damage in the conscious rat. The .

beta.3-adrenoceptor agonists, CL 316243 and BRL 37344, the non-selective .beta.-adrenoceptor agonist, isoprenaline and the selective .beta.2-adrenoceptor agonist, salmeterol, all evoked concn.-dependent relaxation of precontracted muscularis mucosa from rat esophagus. The rank order of agonist potency was BRL 37344 > CL 316243 > isoprenaline .mchgt. salmeterol. selective .beta.1-adrenoceptor agonist, denopamine, did not relax the prepn. The relaxant responses to all agonists were resistant to blockade by atenolol (10 .mu.M), and ICI 118551 (1 .mu.M) thus suggesting that they were not mediated by either .beta.1- or .beta.2adrenoceptor stimulation. In contrast, cyanopindolol and propranolol did inhibit responses to BRL 37344, CL 316243 and isoprenaline, giving pA2 values or pKB ests. which were consistent with an interaction of .beta.3-adrenoceptors (i.e. approx. 8.0 and 6.5 resp.). However, responses to salmeterol were resistant to blockade by all the antagonists tested, which suggests that the high (>1 .mu.M) concns. of salmeterol used exerted non-specific relaxant effects. The agonist effects of CL 316243 and BRL 37344 on .beta.1- and .beta.2-adrenoceptors were assessed on guinea-pig right atrium and precontracted trachea resp. Both agonists had minimal activity as stimulants of heart rate, but did relax trachea, being 380 (CL 316243) and 21 (BRL 37344) fold less potent than isoprenaline. CL 316243 and BRL 37344 were potent inhibitors of indomethacin-induced gastric antral ulceration in the conscious rat (ED50 values = 0.24 and 0.09.mu.mol kg-1 p.o.) ABA: Salmeterol was approx. 100 times less potent than BRL 37344 as a gastroprotective agent and denopamine was without effect. The gastroprotective effects of CL 316243 and BRL 37344 were resistant to blockade by ICI 118551 (10 mg kg-1, p.o.) and propranolol (10 mg kg-1 p.o.). In contrast, both antagonists caused dose-related inhibition of the protective action of salmeterol (10 mg kg-1, p.o.). Cyanopindolol was not assessed as an antagonist in vivo because preliminary expts. revealed that it exacerbated indomethacin-induced gastric damage in its own right. In conclusion, the .beta.3-adrenoceptor agonists CL 316243 and BRL 37344 were potent inhibitors of indomethacin-induced gastric antral ulceration in the rat. These data suggest that an agonist which is potent and selective for the human . beta.3-adrenoceptor may confer mucosal protection in man.

TT 71771-90-9, Denopamine 90730-96-4, BRL 37344

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comparison of profiles of agonists as stimulants of .beta. 3-adrenoceptor in vitro with gastroprotective effects in conscious rat)

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L130 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2002 ACS
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AN 1995:998182 HCAPLUS

DN 124:176115

TI Preparation of substituted arylsulfonamides as selective .beta.3 agonists for the treatment of diabetes and obesity.

IN Fisher, Michael H.; Naylor, Elisabeth M.; Ok, Dong; Weber, Ann E.; Shih, Thomas; Ok, Hyun

PA Merck and Co., Inc., USA

SO PCT Int. Appl., 102 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9529159 A1 19951102 WO 1995-US4956 19950421 <-- W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG,

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PRAI US 1994-233166
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     US 1995-404566
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                        W
OS
     MARPAT 124:176115
GΙ
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$$(R^1)_n$$
ACH (OH) CH2NHCR 2 R 3 Xm $-$ NR 6 SO $_2$ (CH $_2$) $_r$ R 7

Title compds. [I; m = 0, 1; n = 0-5; r = 0-3; A = heterocyclyl, benzoheterocyclyl, heterocycloheterocyclyl, Ph, benzocycloalkyl; R1 = OH, O, halo, cyano, amino, CF3, sulfonylamino, (substituted) alkyl, etc.; R2, R3 = H, (substituted) alkyl; R4, R5 = H, alkyl, halo, amino, sulfonylamino, OH, etc; R6 = H, alkyl; R7 = Z(R11)n; R11 = R1, provided that when A = Ph, R11 .noteq. alkyl; X = CH2, CH2CH2, CH:CH, CH2O; Z = Ph, naphthyl, heterocyclyl, heterocycloheterocyclyl) were prepd. as selective .beta.3 adrenergic receptor agonists with very little .beta.1 and .beta.2 adrenergic receptor receptor activity which are capable of increasing lipolysis and energy expenditure in cells (no data). The compds. thus have potent activity in the treatment of Type II diabetes and obesity. The compds. can also be used to lower triglyceride levels and cholesterol levels or raise high d. lipoprotein levels or to decrease gut motility. In addn.,

antidepressant agents. Title compd. (II) was prepd. in several steps.

the compds. can be used to reduce neurogenic inflammation or as

Ι

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kim - 10 / 044531
ΙT
     173900-52-2P 173900-53-3P 173900-54-4P
     173900-55-5P 173900-56-6P 173900-57-7P
     173900-58-8P 173900-59-9P 173900-60-2P
     173900-61-3P 173900-62-4P 173902-22-2P
     173902-24-4P 173902-26-6P 173902-30-2P
     173902-31-3P 173902-32-4P 173902-33-5P
     173902-34-6P 173902-35-7P 173902-36-8P
     173902-37-9P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
     use); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of substituted sulfonamides as selective .beta.3 agonists for
        the treatment of diabetes and obesity)
L130 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2002 ACS
     1995:614635 HCAPLUS
ΑN
     123:74228
DN
ΤI
     Predictive quantitative structure-activity relationships (QSAR) analysis
     of .beta.3-adrenergic ligands
ΑU
     Blin, Nathalie; Federici, Christian; Koschielniak, Thiery; Strosberg,
CS
     Institut Cochin Genetique Moleculaire, Universite Paris VII, Paris, 75014,
     Drug Design and Discovery (1995), 12(4), 297-311
SO
     CODEN: DDDIEV; ISSN: 1055-9612
PB
     Harwood
     Journal
```

- DΤ
- LA English
- AΒ A novel quant. structure-activity relationships strategy was used to analyzed seventeen .beta.-adrenergic ligands for which we had previously evaluated pharmacol. properties in Chinese hamster ovary cells transfected with the human .beta.1-, .beta.2- or .beta.3-adrenergic gene (Blin et al., 1993, Mol. Pharmacol., 44: 1094-1104). These ligands were classified into pharmacol. activity categories in order to det. the extent to which mol. structural features may be involved in the selectivity of the interaction with the .beta.3-AR, or to define mol. features and properties characteristic of a .beta.3-AR high affinity ligand or of a potent .beta.3-adrenergic agonist. Topol. and physico-chem. mol. descriptors were obtained using a novel software combining calcns. with multivariate statistical methods, such as principal component anal. and discriminant This study showed that .beta.1/.beta.2-antagonists .beta.3-agonists could be differentiate from .beta.1/.beta.2/.beta.3-agonists on the basis of their topol. mol. descriptors weighted by partial at. charge and lipophilicity logP values. Bulky lipophilic groups at the end of the alkylamine chain and an ethoxy function, extending the flexible portion of the mol. and modifying the electron d. distribution, were requirements for selective agonism at the .beta.3-site. Charge and logP weighted 2D-autocorrelation vectors were properties able to discriminate between classes of agonists to terms of their affinity, potency or intrinsic activity, thus emphasizing the part these mol. descriptors play in detg. .beta.3-adrenergic ligands. These results, in assocn. with the powerful activity-prediction model evaluated in the test, provide a framework to rationalize the synthesis of new .beta.3-AR specific compds.
- **74248-92-3**, LY 79771 **90730-96-4**, BRL 37344 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (QSAR anal. of .beta.3-adrenergic ligands)
- L130 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2002 ACS
- AN1995:528146 HCAPLUS
- DN 122:281934
- Metabolic alterations associated with the antidiabetic effect of .ΤI

beta.3-adrenergic receptor agonists

in obese mice

- AU Arbeeny, Cynthia M.; Meyers, Daniel S.; Hillyer, Donna E.; Bergquist, Kristin E.
- CS Dep. Metabolic Diseases, Bristol-Myers Squibb Pharmaceutical Res. Inst., Princeton, NJ, 08543-4000, USA
- SO American Journal of Physiology (1995), 268(4, Pt. 1), E678-E684 CODEN: AJPHAP; ISSN: 0002-9513
- PB American Physiological Society
- DT Journal
- LA English
- AB Treatment of obese (ob/ob) mice with the .beta.3adrenergic receptor (.beta.3-AR) agonist BRL-35135 (1 mg.cntdot.kg body wt-1.cntdot.day-1 for 20 days) normalized plasma glucose levels and significantly decreased plasma insulin and nonesterified fatty acid levels. The time frame for the hypoglycemic effect, which reached a max. after 10 days of treatment, paralleled an increase in brown adipose tissue DNA and protein content. The basal level of mRNA for the .beta.3-AR and mitochondrial uncoupling protein was found to be markedly decreased in the ob/ob animals relative to the lean group. Chronic treatment of ob/ob mice for 20 days resulted in a twofold increase in .beta.3 -AR mRNA and a fivefold increase in uncoupling protein mRNA in brown adipose tissue relative to the placebo group. These findings indicate that chronic treatment of ob/ob animals with a .beta.3 -AR agonist results in proliferation of brown adipose tissue, with an upregulation of the .beta.3-AR, which is assocd. with a decrease in plasma glucose, insulin, and nonesterified fatty acid
- IT **86615-96-5**, BRL-35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(metabolic alterations assocd. with antidiabetic effect of .beta.3-adrenergic agonist BRL-35135 in obese mice)

- L130 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2002 ACS
- AN 1995:396436 HCAPLUS
- DN 122:178252
- TI Acute effects of the .beta.3-adrenoceptor agonist, BRL 35135, on tissue glucose utilization
- AU Liu, Yong-Ling; Stock, Michael J.
- CS Dep. Physiol., St. George's Hosp. Med. Sch., London, SW17 ORE, UK
- SO British Journal of Pharmacology (1995), 114(4), 888-94 CODEN: BJPCBM; ISSN: 0007-1188
- PB Stockton
- DT Journal
- LA English
- The acute effects of BRL 35135 (BRL) on tissue glucose utilization index (GUI) in vivo were investigated in anesthetized rats by use of 2-deoxy-[3H]-glucose. I.v. injection of BRL caused a dose-dependent increase in GUI in skeletal muscle, and white and brown adipose tissue; plasma insulin and fatty acid concns. were also increased. Chronic treatment with BRL added to the diet caused a 34 fold increase in basal GUI of brown adipose tissue (BAT), but had no effect on GUI in other tissues. After chronic treatment, the acute tissue response to an i.v. maximal dose of BRL had disappeared completely in all tissues apart from the soleus muscle. A high dose (20 mg kg-1) of the non-selective .beta.-antagonist, propranolol, inhibited the acute effect of BRL on GUI in BAT, but failed to affect GUI in muscle. A lower dose (1 mg kg-1) of the antagonist also inhibited the BAT response, but had little or no effect on the response in Type I (working) muscles such as soleus and adductor longus (ADL), and potentiated the response in Type II

(non-working) muscles such as tibialis and extensor digitorium longus (EDL). A low dose (1 mg kg-1) of the selective .beta.1-antagonist, atenolol, had no effect on the BRL response but the same dose of the selective .beta.2-antagonist, ICI 118551, potentiated significantly the effect of BRL on GUI in most muscles without altering plasma insulin levels. It is concluded that: (i) the heterogeneous tissue responses of different muscle fiber types in the presence of .beta.-antagonists indicates that BRL affects muscle GUI directly, in addn. to effects mediated by increases in plasma insulin concn.; (ii) the resistance of the BRL response to conventional .beta.-adrenoceptor antagonists implicates an atypical adrenoceptor mediating the GUI response in skeletal muscle, but this may not be identical to the adipose tissue .beta.2-adrenoceptor, (iii) the potentiation of BRL responses by ICI 118551 indicates an inhibitory .beta.2-adrenoceptor-mediated component in the muscle GUI response to BRL.

IT **86615-96-5**, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(acute effects of the .beta.3-adrenoceptor agonist BRL 35135 on tissue glucose utilization)

L130 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:252043 HCAPLUS

DN 122:23562

- TI Potentiation of the antiobesity effect of the selective .beta.
 3-adrenoceptor agonist BRL 35135 in obese Zucker rats by
 exercise
- AU Santti, Eriika; Huupponen, Risto; Rouru, Juha; Haenninen, Virve; Pesonen, Ullamari; Jhanwar-Uniyal, Meena; Koulu, Markku
- CS Dept. Pharmacology, Univ. Turku, Turku, Finland
- SO British Journal of Pharmacology (1994), 113(4), 1231-6 CODEN: BJPCBM; ISSN: 0007-1188
- PB Stockton
- DT Journal
- LA English
- AB The effects of chronic treatments with a selective .beta. 3-adrenoceptor agonist and a selective .alpha.2adrenoceptor antagonist and their interactions with phys. exercise training were studied in exptl. obesity. BRL 35135 (.beta. 3-agonist, 0.5 mg/kg/day, orally), atipamezole (.alpha.2-antagonist, 4.0 mg/kg/day, orally) and placebo were given to genetically obese male Zucker rats. Half of the rats were kept sedentary whereas the other half were subjected to moderate treadmill exercise training. Boty wt. gain, cumulative food intake, the neuropeptide Y content of the hypothalamic paraventricular nucleus, brown adipose tissue thermogenic activity (measured as GDP binding), and plasma insulin and glucose levels were measured after 3-wk treatment and exercise. Treatment with BRL 35135 reduced wt. gain by 19%, increased brown adipose tissue thermogenic activity 45-fold and reduced plasma insulin by 50%. Atipamezole slightly increased food intake and neuropeptide Y content in the paraventricular hypothalamic nucleus but had no effect on the other parameters measured. Exercise alone had no effect on wt. gain, food intake or thermogenic activity, whereas it reduced plasma insulin and glucose levels. The effect of BRL 35135 on wt. gain and thermogenic activity was potentiated by exercise: the redn. in wt. gain was 56% in comparison with 19% in sedentary animals. Food intake was reduced in the BRL 35135-treated-exercise-trained animals, although neither the \cdot

beta.3-agonist nor exercise alone affected it. Based on these results in genetically obese Zucker rats, combination of . beta.3-agonist treatment with a moderate phys. training may offer a new feasible approach to the therapy of obesity.

TT **86615-96-5**, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(.beta.3-adrenergic agonist BRL 35135 plus exercise treatment of obesity)

L130 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:645501 HCAPLUS

DN 121:245501

- TI Enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in the rat
- AU Kuratani, Kazuyoshi; Kodama, Hiroshi; Yamaguchi, Isamu
- CS Tsukuba Res. Labs., Fujisawa Pharm. Co. Ltd., Tsukuba, 300-26, Japan
- SO Journal of Pharmacology and Experimental Therapeutics (1994), 270(2), 559-65
 CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

- AB Indomethacin (32 mg/kg s.c.) produced mainly antral ulcers in refed rats but almost exclusively corpus erosions in fasted rats. S.c. doses of a nonselective beta (isoproterenol), a selective .beta.-2 (salbutamol) and selective .beta.-3 adrenergic agonists BRL 35135, CL 316243, SR 58611A, dose-dependently attenuated the antral ulcers, and their activities were in the order of BRL 35135 (ED50 = 0.03 mg/kg) > CL 316243 (ED50 = 0.04 mg/kg) > SR 68511A (ED50 = 0.2 mg/kg) > isoproterenol (ED50 = 0.4 mg/kg) > salbutamol (ED50 = 6 mg/kg). Whereas only isoproterenol, salbutamol and BRL35135 significantly attenuated the corpus erosions and reduced gastric acid secretion in pylorus-ligated rats. In in vitro, all the beta agonists enhanced the beating rate of guinea pig atria (.beta.-1 action) and inhibited spontaneous contractions of rat uterus (.beta.-2 action) and colon (.beta.-3 action). There was found a statistically significant correlation between the IC50 values of the drugs on the colon and ED50 values on the indomethacin-induced antral ulcers (r = 0.97). In addn., the beta agonists excepting salbutamol increased antral gastric mucosal blood flow in rats anesthetized with halothane, and the activities were arranged in the potency order of inhibiting colon motility. It is concluded that activation of .beta.-3 adrenoceptor attenuates the indomethacin-induced antral ulcers through an enhancement of antral gastric mucosal blood flow, whereas activation of beta-1 and/or .beta.-2 adrenoceptors attenuates indomethacin-induced corpus erosions through an inhibition of gastric secretion.
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in rat)

=> d bib abs hitrn retable tot 1119

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L119 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2002 ACS
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AN 1986:224720 HCAPLUS

DN 104:224720

- TI Tertiary 2-hydroxy-3-aryloxypropyl- and 2-hydroxy-2benzofuranylethylamines having antihyperglycemic and/or antiobesity activity
- IN Ainsworth, Anthony Trevor; Cawthorne, Michael Anthony
- PA Beecham Group PLC, UK
- SO Eur. Pat. Appl., 94 pp. CODEN: EPXXDW
- DT Patent

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LA English
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L'MIN'	-INI	1					
	PA	TENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	ΕP	170121	A1	19860205		EP 1985-108609	19850710 <
	EΡ	170121	B1	19910619			
		R: AT, BE,	CH, DE,	, FR, GB,	ΙΤ,	LI, LU, NL, SE	
	AT	64590	E	19910715		AT 1985-108609	19850710 <
	DK	8503253	Α	19860120		DK 1985-3253	19850717 <
	za	8505400	Α	19860528		ZA 1985-5400	19850717 <
	JP	61076446	A2	19860418		JP 1985-157137	19850718 <
	ES	545365	A1	19861116		ES 1985-545365	19850718 <
	ΑU	8545173	. A1	19860123		AU 1985-45173	19850719 <
	ES	552860	A1	19870501		ES 1986-552860	19860310 <
PRAI	GB	1984-18472		19840719	<	_	
	EΡ	1985-108609		19850710	<	_	
GI						•	

AB NR1R2R3 [R1 = (un)substituted 2-hydroxy-3-aryloxypropyl, 2-hydroxy-2-benzofuranylethyl; R2 = as given for R1, (un)substituted 2-hydroxy-2-arylethyl; R3 = substituted 2- or 3-arylpropyl, 2-aryloxyethyl; CHOH moieties may be present as carbonyls or esters] were prepd. as antiobesity and/or antihyperglycemia agents in humans or animals, and as feed additives for livestock. Thus, aminopropylphenoxyacetate (.+-.)-(R*,R*)-I (R4 = H) was refluxed with phenoxymethyloxirane in EtOH for 4 days to give I [R4 = CH2CH(OH)CH2OPh] (II). Given orally to mice, II reduced parametrial fat pads by 39% at 55 mg/kg, increased energy expenditure by 58% at 27.5 mg/kg, and gave 50% redn. in 2-h integrated blood glucose curves at 0.5 .mu.mol/kg.

IT 102198-54-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction of, with phenoxymethyloxirane)

L119 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1985:523489 HCAPLUS

DN 103:123489

TI Morpholine derivatives

IN Cantello, Barrie Christian Charles

PA Beecham Group PLC, UK

SO Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	U.1.1 1			
	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
ΡI	EP 140359	A1 19850508	EP 1984-113014	19841029
	EP 140359	B1 19890125		
	R: CH, DE,	, FR, GB, IT, LI, NL		
	US 4607033	A 19860819	US 1984-666818	19841031
	JP 60112778	A2 19850619	JP 1984-231130	19841101
	JP 06004604	B4 19940119		
	US 4665072	A 19870512	US 1986-865348	19860521
	US 4783460	A 19881108	US 1987-26893	19870317

PRAI GB 1983-29247 19831102
GB 1984-4047 19840216
US 1984-666818 19841031
US 1986-865348 19860521

ĢΙ

AB Morpholines and perhydrooxazepines I [n = 2, 3; R = Ph, halophenyl, (trifluoromethyl)phenyl, 2-benzofuryl; Rl = H, Me; m = 1, 2; R2 = CO2H, esterified CO2H, carbamoyl, carboxyalkoxy, esterified carboxyalkoxy, carbamoylalkoxy, aminoalkoxy, hydroxyalkoxy, alkoxyalkoxy], which were prepd., exhibited antidiabetic activity. 2-Phenylmorpholine was stirred with 4-(MeCOCH2)C6H4OCH2CO2Me and NaB(CN)H3 in MeOH, and the mixt. was worked up to give I (n = 2, R = Ph, Rl = Me, m = 1, R2 = OCH2CO2Me).

IT 98235-69-9P 98235-70-2P

Ι

- L119 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2002 ACS
- AN 1984:406799 HCAPLUS
- DN 101:6799
- TI 2-Aminoethyl ether derivatives, and their pharmaceutical compositions
- IN Cantello, Barrie Christian Charles
- PA Beecham Group PLC, UK
- SO Eur. Pat. Appl., 87 pp.
- CODEN: EPXXDW
- DT Patent
- LA English
- FAN.CNT 1

	PAI	CENT NO.		KIN	D [DATE			AP	PLICA'	TION	NO.	DATE			
ΡI	EP	99707		A1	1	L984	0201		EP	1983	-3039	983	198307	80	<	
	EP	99707		В1	1	L986	1210									
		R: BE, 0	CH,	DE,	FR,	GB,	IT,	LI,	NL,	SE						
	ΑU	8316826		A1	1	L984	0223		AU	1983·	-1682	26	198307	14	<	
	ΑU	557743		В2	1	L987	0108									
	ZA	8305126		Α	1	L984	0627		ZA	1983	-5126	5	198307	14	<	
	US	4629737		Α	1	L986	1216		US	1983	-5138	369	198307	14	<	
	CA	1253870		A1	1	L989	0509		CA	1983	-4324	465	198307	14	<	
	JP	59031740		A2	1	L984	0220		JP	1983	-1280	035	198307	15	<	
	ES	524174		A1	1	L984	1116		ES	1983	-5241	174	198307	15	<	
PRAI	GB	1982-20645	5		1	1982	0716	<								
	GB	1982-28753	3		1	1982	1007	<	•							
	GB	1982-35672	2		1	1982	1215	<					•			
GT																

RCH (OR¹) CH₂NHCHR² (CH₂)
$$n$$
 R^3

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AΒ
    Amines I [R = Ph, alkyl-, halo-, or (trifluoromethyl)phenyl, PhOCH2,
     2-benzofuryl; R1 = alkyl, phenylalkyl; R2 = H, Me; n = 1, 2; R3 = CO2H,
    carboxyalkyl, carboxyalkenyl, hydroxyalkyl, hydroxyalkenyl, aminoalkyl,
     aminoalkenyl, alkoxy, alkylthio, alkylamino, hydroxyalkoxy,
    hydroxyalkylthio, hydroxyalkylamino, aminoalkoxy, aminoalkylthio,
    aminoalkylamino, ZZ1CO2H (Z = O, S, NH; Z1 = alkylene, alkenylene)] were
    prepd., and they exhibited antidiabetic activity. A mixt. of
    4-(MeCOCH2)C6H4OCH2CO2Me and 3-ClC6H4CH(OMe)CH2NH2 in PhMe was refluxed 2
    h, and the mixt. was treated with Pt and H2 to give I (R = 3-C1C6H4, R1 =
    R2 = Me, n = 1, R3 = 4-OCH2CO2Me). Some I also showed antiinflammatory
    activity and inhibited blood platelet aggregation.
IT
    90469-95-7P 90469-96-8P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and amidation of, by methylamine)
ΙT
    90469-90-2P 90469-91-3P 90469-93-5P
    90469-94-6P
    RL: BAC (Biological activity or effector, except adverse); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
    study); PREP (Preparation); USES (Uses)
        (prepn. and antidiabetic activity of)
L119 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2002 ACS
AN
    1983:594608 HCAPLUS
DN
    99:194608
TI
    Secondary phenylethanol amines and their pharmaceutical application
    Hindley, Richard Mark
IN
    Beecham Group PLC, UK
PΑ
SO
    Eur. Pat. Appl., 109 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                     ____
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                                          -----
                                                           _____
                      A2
PI
    EP 70133
                           19830119
                                          EP 1982-303507
                                                           19820705 <--
    EP 70133
                      А3
                           19830518
    EP 70133
                    B1
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        R: BE, CH, DE, FR, GB, IT, LI, NL, SE
                A1 19830120
    AU 8285790
                                          AU 1982-85790
                                                           19820709 <--
    AU 553070
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                    A
A2
A1
A1
    ZA 8204903
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    JP 58018339
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    ES 520691
                     A1
                           19840501
                                          ES 1983-520691
                                                           19830316 <--
                           19810711 <--
19811230 <--
PRAI GB 1981-21442
    GB 1981-39024
    HOCHRCH2NHCR1R2(CH2)nR3 [I; R = (un)substituted Ph, 2-benzofuranyl; R1, R2
    = H, Me; R3 = substituted alkoxyphenyl; n = 1, 2] were prepd. Thus,
    3,2-C1FC6H3CH(OH)CH2NH2 was condensed with 4-(MeNHCH2CH2O)C6H4CH2COMe to
    give an enamine which was hydrogenated to give diastereoisomeric
    3,2-C1FC6H3CH(OH)CH2NHCHMeCH2C6H4(OCH2CH2NHMe)-4.2HCl (II). In mice, 1
     .mu.mol II/kg orally reduced blood glucose 64%, and 25.3 mg II/kg orally
    increased energy expenditure 48% and reduced food intake 21%.
IT
    86608-15-3P 86608-16-4P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and antidiabetic and antiobesity activity of)
```

L119 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1983:215308 HCAPLUS

DN 98:215308

TI Secondary amines

IN Smith, David Glynn

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PA
    Beecham Group PLC, UK
SO
    Eur. Pat. Appl., 89 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    English
FAN.CNT 1
                    KIND DATE
                                        APPLICATION NO.
    PATENT NO.
                                                        DATE
                                        _____
                         -----
                                                        -----
PΤ
    EP 61907
                     A1
                          19821006
                                        EP 1982-301594
                                                        19820326 <--
    EP 61907
                    В1
                          19840801
        R: BE, CH, DE, FR, GB, IT, NL, SE
                                   AU 1982-82123
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PRAI GB 1981-10036
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                          19811230 <--
GI
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$$RR^{1}NZ$$
 (CH₂) $nCR^{3}R^{4}NHCH_{2}CHR^{5}OH$

AB Ethanolamines I [R, R1 = H, alkyl, (un)substituted PhCH2; R2 = H, halogen, alkoxy, alkyl, NR6R7; R3, R4 = H, Me; R5 = (un)substituted Ph, 2-benzofuranyl; R6 = H, alkyl; R7 = alkyl; Z = alkylene; n = 1,2] were prepd. Thus, 4.11 g HOCHPhCH2NH2 was treated with 4.77 g 4-NCC6H4CH2COMe and the resulting enamine reduced with NaBH4 and then with LiAlH4 to give 3.8 g I (R, R2, R3, R5 = H, R1 = R4 = Me, Z = CH2, n = 1). I are active as appetite depressants at 6.3-12.2 mg/kg, hypoglycemics (2.5-100 mg/kg), inflammation inhibitors, and are >60 times as effective as aspirin in inhibiting blood platelet aggregation.

IT 85064-67-1P 85070-73-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and antiobesity activity of)

IT 85114-96-1P 85114-97-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction with methylamine)

IT 85064-68-2P 85070-97-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and redn. of)

L119 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1982:544754 HCAPLUS

DN 97:144754

TI Secondary amines

IN Ferris, Michael John

PA Beecham Group Ltd. , UK

SO Brit. UK Pat. Appl., 14 pp.

CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

PI

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2084577	A	19820415	GB 1981-28824	19810923 <

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GB 2084577
                        B2
                             19840502
     CA 1175851
                        A1
                             19841009
                                             CA 1981-385953
                                                               19810915 <--
     ZA 8106567
                        Α
                             19820929
                                             ZA 1981-6567
                                                               19810922 <--
     AU 8175603
                        Α1
                             19820401
                                             AU 1981-75603
                                                               19810923 <--
                             19850815
     AU 546104
                        B2
     EP 51917
                        A1
                             19820519
                                             EP 1981-304398
                                                               19810923 <--
                             19860219
     EP 51917
                        B1
         R: BE, CH, DE, FR, IT, NL
     US 4432993
                             19840221
                                             US 1981-305117
                                                               19810924 <--
                        Α
     JP 57085383
                        A2
                             19820528
                                             JP 1981-151924
                                                               19810925 <--
     ES 505801
                        A1
                             19830201
                                             ES 1981-505801
                                                               19810925 <---
PRAI GB 1980-31228
                             19800926
                                       <--
     CASREACT 97:144754
OS
GI
```

Benzofurylethanolamines I [R, Rl = H, Me; R2 = OH, (un)substituted alkoxy, alkyl; R3 = H, OH, halogen, alkyl, alkoxy; n = 1-3] were prepd. Thus 2-formylbenzofuran was treated with Me3SiCN and reduced with LiAlH4 to give 2-(2-benzofuryl)-2-hydroxyethylamine which was treated with 4-MeC6H4CH2COMe and hydrogenated to give I (R = Me, R1 = R3 = H, R2 = Me, n = 1, II) as a mixt. of diastereoisomers. II had antiobesity activity with only a slight effect on heart rate. Other I had antidiabetic, antiinflammatory, and platelet aggregation-inhibiting activity.

IT 83123-40-4 83123-48-2

RL: RCT (Reactant)

(hydrogenation of)

IT 83123-24-4P 83123-29-9P 83123-30-2P 83123-31-3P 83123-32-4P 83123-35-7P 83123-41-5P 83123-42-6P 83123-43-7P 83123-44-8P 83123-45-9P 83123-46-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and antiobesity and antidiabetic activity of)

IT 83123-24-4P 83123-25-5P 83123-26-6P 83123-27-7P 83123-28-8P 83123-29-9P

83123-36-8P 83123-37-9P 83123-38-0P 83123-39-1P 83123-47-1P 83140-92-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. and pharmacol. activity of)

L119 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1981:568976 HCAPLUS

DN 95:168976

TI Secondary ethanol amines, their use in pharmaceutical compositions and intermediates for them

IN Ferris, Michael John

PA Beecham Group Ltd. , UK

SO Eur. Pat. Appl., 43 pp. CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

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PΙ
                        A2
                             19810527
     EP 29320
                                             EP 1980-303931
                                                               19801105
     EP 29320
                        A3
                             19810805
     EP 29320
                        B1
                             19850710
         R: AT,
                 ΒĖ,
                      CH, DE, FR, GB, IT, NL, SE
                             19850715
                                             AT 1980-303931
     AT 14222
                        Ε
                                                               19801105
                        Α
                                             US 1980-204846
     US 4341793
                             19820727
                                                               19801107
                        Α
                             19810516
                                             DK 1980-4891
     DK 8004891
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     JP 56083484
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                             19810708
                                             JP 1980-160639
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     ZA 8007078
                        Α
                             19811028
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                        Α1
                             19840124
                                             CA 1980-364738
     AU 540343
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                             19841115
                                             AU 1980-64354
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                             19810521
     ES 507410
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                             19820901
                                             ES 1981-507410
                                                               19811124
PRAI GB 1979-39536
                             19791115
     EP 1980-303931
                             19801105
GΙ
```

R CH (OH)
$$CH_2NHCR_1R_2$$
 (CH_2) n CO_2R_3

AB Benzofuranethanolamines I (R = H, Cl, Br, OH, OMe, NO2, NH2, CF3; R1, R2 = H, Me; R3 = H, alkyl; n=1-3) were prepd. Thus, 4-MeO2CC6H4CH2CHMeNH2 was treated with 2-benzofuranglyoxal, followed by NaBH4 redn. to give I (R = R1 = H, R2 = R3 = Me, n=1) as a 4:1 mixt. of diastereoisomers. The isomers gave 27.4 and 46.4% redn. in blood glucose, resp., at 1.0 and 17.7 mg/kg, resp., orally in mice.

TT 79361-97-0P 79362-71-3P 79362-73-5P 79362-74-6P 79362-76-8P 79362-77-9P 79362-78-0P 79362-80-4P 79362-81-5P 79362-82-6P 79390-98-0P .

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antidiabetic activity of)

L119 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1966:104078 HCAPLUS

DN 64:104078

OREF 64:19560g-h,19561a

TI Benzofuran derivatives

PA Societe Belge de l'Azote et des Produite Chimiques du Marly, S.A.

SO 9 pp.

DT Patent

LA Unavailable

FAN.CNT 1

r AIV.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 65006415		19651122	NL	
PRAI	GB		19640520		

GI For diagram(s), see printed CA Issue.

AB The title compds. were prepd. through reaction of I (R = halogen) with an amine. Thus, 30 g. 2-(.omega.-bromoacetyl)benzofuran (II) was suspended in 750 ml. MeOH and cooled to 0.degree., 9.1 g. NaBH4 added at 10-20.degree., and the mixt. stirred 1 hr. at room temp. to give

```
1-(2-benzofuryl)-1-hydroxy-2-bromoethane. The Cl analog of II gave I (R =
     Cl) (III). III (16 g.) and 17.5 g. iso-PrNH2 in 84 ml. EtOH was refluxed
      24 hrs. to give 9.2 g. I (R = isopropylamino), m. 108-9.degree..
      Similarly prepd. were the following I (R and m.p. given): ethylamino,
      108.degree.; phenethylamino, 99-100.degree.; allylamino, 92.degree.;
      cyclohexylamino, 106.degree.; .beta.-(3,4-methylenedioxyphenyl)ethylamino,
      -- (HCl salt m. 184.degree.); .alpha.-methylphenethylamino, -- (HCl salt
     m. 145.degree.); 1-methyl-3-phenyl-propylamino, -- (HCl salt m.
      171.degree.); 3-phenylpropylamino, 110.degree.; butylamino, -- (HCl salt
     m. 172.3.degree.); tert-butylamino, 133.degree.; phenoxyethylamino, --
      (HCl salt m. 202.degree.). The products depress the cardiac contraction
     provoked by noradrenaline or aleudrine.
     5536-81-2, 2-Benzofuranmethanol, .alpha.-[[(2-
     phenoxyethyl)amino]methyl]- 5536-82-3, 2-Benzofuranmethanol,
      .alpha.-[[(2-phenoxyethyl)amino]methyl]-, hydrochloride 5536-84-5
      , 2-Benzofuranmethanol, .alpha.-[[(3-phenylpropyl)amino]methyl]-
      5536-85-6, 2-Benzofuranmethanol, .alpha.-[[(1-methyl-3-
     phenylpropyl)amino]methyl]-, hydrochloride 5536-86-7,
      2-Benzofuranmethanol, .alpha.-[[(.alpha.-methylphenethyl)amino]methyl]-,
     hydrochloride 5536-89-0, 2-Benzofuranmethanol,
      .alpha.-[(phenethylamino)methyl]-
         (prepn. of)
L119 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2002 ACS
AN
      1966:93335 HCAPLUS
      64:93335
DN
OREF 64:17543a-c
     2-(2-Amino-1-hydroxyethyl)benzofurans
TI
     Societe Belge de l'Azote et des Produits Chimiques du Marly, S.A.
PΑ
SO
     12 pp.
DT
     Patent
LA
     Unavailable
FAN.CNT 1
                     KIND DATE
                                                APPLICATION NO. DATE
      PATENT NO.
     BE 663926
PΙ
                                19651116
                                                 BE
                                                                      19650514
GΙ
     For diagram(s), see printed CA Issue.
AB
     Compds. of the general formula I are prepd. and can be used as hypotensive
     agents. Thus, 30 g. 2-bromoacetylbenzofuran in 750 ml. MeOH is treated
     overnight with 9.1 g. NaBH4 to give 76% 1-(2-benzofuryl)-1-hydroxy-2-
     bromoethane. Similarly prepd. is 1-(2-benzofuryl)-1-hydroxy-2-
      chloroethane (II). A mixt. of 16 g. II, 17.5 g. iso-PrNH2, and 84 ml.
     EtOH is refluxed 24 hrs. to give 61% 1-(2-benzofuryl)-1-hydroxy-2-
     isopropylaminoethane (III), m. 108-9.degree. (cyclohexane), CHl salt m. 155.degree. (MeEtCO-EtOH). Similarly prepd. are the following I (R, m.p.,
     m.p. HCl salt, and % yield given): Et, 108.degree. (cyclohexane), --,
     43.3; PhCH2CH2, 99-100.degree. (cyclohexane), --, 30.1; allyl, 92.degree. (ligroine), --, 25.7; cyclohexyl, 106.degree. (cyclohexane), --, 17.2; 2-(3,4-methylenedioxyphenyl)ethyl, --, 184.degree. (MeEtCO-EtOH), --; PhCH2-CH4CH4C, --, 145.degree., (MeEtCO), 23; PhCH2CH2CH4C, --, 171.degree.
     (tetrahydrofuran), --; Ph(CH2)3, 110.degree. (cyclohexane), --, 24; Bu, --, 172-3.degree. (EtOH-MeEtCO), 42; tert-Bu, 133.degree. (cyclohexane), --, 21.4; PhOCH2CH2, --, 202.degree. (EtOH), 37.9. A tablet or pill is prepd. from 25 ml. III.HCl, 161 ml. lactose, 4 ml. gelatin, 50 ml. potato
     starch, 1.5 ml. talc, and 2.5 ml. Mg stearate.
     5536-81-2, 2-Benzofuranmethanol, .alpha.-[[(2-
     phenoxyethyl)amino]methyl]- 5536-82-3, 2-Benzofuranmethanol,
      .alpha.-[[(2-phenoxyethyl)amino]methyl]-, hydrochloride 5536-84-5
      , 2-Benzofuranmethanol, .alpha.-[[(3-phenylpropyl)amino]methyl]-
      5536-85-6, 2-Benzofuranmethanol, .alpha.-[[(1-methyl-3-
     phenylpropyl)amino]methyl]-, hydrochloride 5536-86-7,
      2-Benzofuranmethanol, .alpha.-[[(.alpha.-methylphenethyl)amino]methyl]-,
      hydrochloride 5536-89-0, 2-Benzofuranmethanol,
```

.alpha.-[(phenethylamino)methyl] (prepn. of)

=> fil reg FILE 'REGISTRY' ENTERED AT 10:44:32 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d 1111 ide can 1 10 20 30 40 50 60 70 73

L111 ANSWER 1 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 345585-05-9 REGISTRY

CN Benzoic acid, 4-[2-[[2-(2-benzofuranyl)-2-hydroxyethyl]amino]propyl]-, methyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C21 H23 N O4

SR CA

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L111 ANSWER 10 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 102198-54-9 REGISTRY

CN Acetic acid, [4-[2-[[2-(2-benzofuranyl)-2-hydroxyethyl]amino]propyl]phenox y]-, ethyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C23 H27 N O5

SR CA

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 104:224720

L111 ANSWER 20 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 86608-16-4 REGISTRY

CN 2-Benzofuranmethanol, .alpha.-[[[1-methyl-2-[4-[2-

(methylamino)ethoxy]phenyl]ethyl]amino]methyl]-, dihydrochloride (9CI)

(CA INDEX NAME)

MF C22 H28 N2 O3 . 2 C1 H

LC STN Files: CA, CAPLUS

CRN (86608-15-3)

•2 HCl

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 99:194608

L111 ANSWER 30 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 83123-45-9 REGISTRY

CN 2-Benzofuranmethanol, .alpha.-[[[2-(4-methoxyphenyl)-1-methylethyl]amino]methyl]-, (R*,R*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Benzofuranmethanol, .alpha.-[[[2-(4-methoxyphenyl)-1-methylethyl]amino]methyl]-, (R*,R*)-(.+-.)-

FS STEREOSEARCH

MF C20 H23 N O3

LC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 97:144754

L111 ANSWER 40 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 83123-35-7 REGISTRY

CN 2-Benzofuranmethanol, .alpha.-[[[3-(4-methylphenyl)propyl]amino]methyl]-(9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C20 H23 N O2

LC STN Files: CA, CAPLUS, USPATFULL

OH
$$CH-CH_2-NH-(CH_2)_3$$
 Me

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 97:144754

L111 ANSWER 50 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 79390-98-0 REGISTRY

CN Benzoic acid, $4-[2-[[2-(2-benzofuranyl)-2-hydroxyethyl]amino]propyl]-, methyl ester, <math>[S-(R^*,S^*)]-(9CI)$ (CA INDEX NAME)

FS STEREOSEARCH

MF C21 H23 N O4

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 95:168976

L111 ANSWER 60 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 79362-76-8 REGISTRY

CN Benzoic acid, 4-[2-[[2-hydroxy-2-(7-methoxy-2-benzofuranyl)ethyl]amino]propyl]-, methyl ester, (R*,S*)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H25 N O5

LC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 95:168976

L111 ANSWER 70 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 5536-85-6 REGISTRY

MF C20 H23 N O2 . C1 H

LC STN Files: CA, CAOLD, CAPLUS

HCl

- 3 REFERENCES IN FILE CA (1962 TO DATE)
- 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)
- 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 65:56683

REFERENCE 2: 64:104078

REFERENCE 3: 64:93335

L111 ANSWER 73 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 5536-81-2 REGISTRY

CN 2-Benzofuranmethanol, .alpha.-[[(2-phenoxyethy1)amino]methy1]- (8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C18 H19 N O3

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 64:104078

REFERENCE 2: 64:93335

=> d his

L6

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E MARUANI J/AU 52 S E3-E5

L1 152 S E3-E5

E SOUBRIE P/AU

L2 215 S E3-E8

E SANOFI/PA,CS

L3 1921 S E2, E3, E4

L4 1921 S SANOFI?/PA,CS

E SYNTHELABO/PA,CS

L5 2057 S SYNTHELAB?/PA,CS

97 S L1, L2 AND L3-L5

E FR97-870/PA,CS E FR97-870/AP,PRN

L7 1 S E3, E4

E WO98-FR154/AP, PRN

L8 1 S E3, E4

E US6344474/PN

L9 . 1 S E3

L10 1 S L1-L6 AND L7-L9

SEL RN

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L12
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L13
                STR
L14
              5 S L13
L15
                STR L13
L16
            103 S L15 FUL
                SAV L16 JKIM44531/A
L17
             95 S L16 NOT L11, L12
     FILE 'HCAOLD' ENTERED AT 09:20:53 ON 13 OCT 2002
              0 S L11 OR L12 OR L17
L18
     FILE 'HCAPLUS' ENTERED AT 09:20:59 ON 13 OCT 2002
L19
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            119 S RIMONABANT OR SR141716 OR SR() (141716 OR 141 716)
L20
L21
            608 S SR141716# OR SR()(141716# OR 141 716#)
L22
            618 S L19-L21
             25 S L17
L23
            622 S L22, L23
L24
             58 S L11
L25
            119 S SR141716 OR SR() (141716 OR 141 716)
L26
L27
            130 S L25, L26
            492 S L24 NOT L27
L28
L29
            362 S L1, L2 NOT L10
     FILE 'REGISTRY' ENTERED AT 09:25:08 ON 13 OCT 2002
     FILE 'HCAPLUS' ENTERED AT 09:25:08 ON 13 OCT 2002
                SET SMARTSELECT ON
                                 558 TERMS
L30
            SEL L29 1- RN :
                SET SMARTSELECT OFF
     FILE 'REGISTRY' ENTERED AT 09:25:18 ON 13 OCT 2002
L31
            555 S L30
L32
              1 S L31 AND (46.150.18 AND 591.49.51)/RID
                E C22H26CLNO4/MF
              7 S E3 AND (46.150.18 AND 591.49.51)/RID
L33
              1 S L33 AND 2S
L34
              1 S L33 AND 2R
L35
L36
              1 S L34 AND L35
                SEL RN
L37
              1 S E1/CRN
L38
              1 S L32, L37
L39
              7 S L32-L37 NOT L38
                SEL RN
              7 S E3-E8/CRN NOT L38
L40
L41
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L42
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L45
             10 S L42
L46
             82 S L45, L46
L47
             44 S L27 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L48
            164 S L28 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L49
L50
              0 S L48 AND L49
L51
            170 S L12
L52
              6 S L28, L51 AND L27
L53
              4 S L52 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L54
             80 S L51 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
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L55
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L57
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L58
            146 S (L12 OR L17) (L) (THU OR BAC)/RL
             24 S L56 AND L57, L58
L59
              4 S L55 AND 63/SC
L60
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L61
L62
             36 S L55 AND 1/SC, SX
             24 S L59, L60
L63
L64
             16 S L62 NOT L63
                SEL DN AN 7
              1 S E9-E11 AND L64
L65
             25 S L63, L65 AND L1-L10, L19-L29, L48-L65
L66
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     FILE 'HCAPLUS' ENTERED AT 09:40:14 ON 13 OCT 2002
     FILE 'REGISTRY' ENTERED AT 09:41:29 ON 13 OCT 2002
     FILE 'REGISTRY' ENTERED AT 09:42:09 ON 13 OCT 2002
     FILE 'HCAPLUS' ENTERED AT 09:43:37 ON 13 OCT 2002
L67
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L68
              9 S L47 AND 63/SC, SX
L69
             51 S L47 AND 1/SC, SX
             60 S L47 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L70
             44 S L67-L69 AND L70
L71
     FILE 'REGISTRY' ENTERED AT 09:45:36 ON 13 OCT 2002
L72
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L73
L74
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L75
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L76
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              3 S L76
L77
L78
                STR L76
              0 S L78
L79
L80
                STR L74
              7 S L80
L81
L82
                SCR 2043 OR 2127
              7 S L80 NOT L82
L83
              3 S L78 NOT L82
L84
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L85
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L86
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L87
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L88
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L89
             10 S L88 SAM SUB=L87
            237 S L88 FUL SUB=L87
L90
                SAV L90 JKIM44531C/A
            138 S L87 NOT L90
L91
L92
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             76 S L88 CSS FUL SUB=L90
L93
                SAV L93 JKIM44531D/A
            161 S L90 NOT L93
L94
             61 S L93 NOT L41, L42
L95
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L96
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L97
L98
             13 S L97 AND L71
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L99
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     FILE 'HCAPLUS' ENTERED AT 10:14:26 ON 13 OCT 2002
     FILE 'REGISTRY' ENTERED AT 10:14:49 ON 13 OCT 2002
     FILE 'REGISTRY' ENTERED AT 10:15:56 ON 13 OCT 2002
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L101
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L102
             75 S L100 FUL
                SAV L102 JKIM44531E/A
L103
                STR L100
             17 S L103
L104
           4534 S L103 FUL
L105
                SAV L105 JKIM44531F/A
L106
                STR L103
L107
           4607 S L102 OR L105
L108
            50 S L106 CSS SAM SUB=L107
L109
           2224 S L106 CSS FUL SUB=L107
                SAV L109 JKIM44531G/A
L110
              2 S L102 AND L109
L111
             73 S L102 NOT L110
     FILE 'HCAPLUS' ENTERED AT 10:35:48 ON 13 OCT 2002
L112
             10 S L111
L113
             10 S L112 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L114
              5 S L113 AND (1 OR 63)/SC,SX
              3 S L111 (L) (THU OR BAC)/RL
L115
L116
              6 S L114, L115
L117
              4 S L112 NOT L116
                SEL DN AN 2
L118
              3 S L117 NOT E12-E14
              9 S L116, L118
L119
     FILE 'REGISTRY' ENTERED AT 10:39:26 ON 13 OCT 2002
L120
           2222 S L109 NOT L110
L121
           2312 S L105 NOT L120
    FILE 'HCAPLUS' ENTERED AT 10:40:08 ON 13 OCT 2002
L122
           508 S L120
           2818 S L121
L123
             78 S L120(L)THU/RL
L124
L125
            666 S L121 (L) THU/RL
            324 S L122, L123 AND 63/SC
L126
            505 S L124-L126 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)
L127
           1213 S BETA 3 (L) ADRENOCEPTOR
L128
            886 S BETA 3 (L) ADRENERGIC (L) RECEPTOR
L129
             24 S L127 AND L128, L129
L130
     FILE 'REGISTRY' ENTERED AT 10:42:57 ON 13 OCT 2002
     FILE 'HCAPLUS' ENTERED AT 10:43:18 ON 13 OCT 2002
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9 S L119 NOT L130

FILE 'REGISTRY' ENTERED AT 10:44:32 ON 13 OCT 2002

L131

=> fil reg FILE 'REGISTRY' ENTERED AT 11:07:24 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d sta que 119 L6 STR

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC 10 NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L8 240 SEA FILE=REGISTRY SSS FUL L6 L16 STR

20 OH 2 1 C 3 CH—CH2—NH—CH2—Cb=O 1 C 7 8 9 21 22 23 6 C C 4

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM GGCAT IS PCY AT 22 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L18 196 SEA FILE=REGISTRY SUB=L8 SSS FUL L16

L19 44 SEA FILE=REGISTRY ABB=ON PLU=ON L8 NOT L18

=> d his 119-

(FILE 'REGISTRY' ENTERED AT 11:04:08 ON 13 OCT 2002)

SAV L18 JKIM44531I/A

44 S L8 NOT L18 L19

FILE 'HCAPLUS' ENTERED AT 11:06:29 ON 13 OCT 2002

L20 11 S L19

7 S L20 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128) L21

L22 10 S L19 (L) (THU OR BAC)/RL

L23 10 S L20 AND (1 OR 63)/SC, SX

L24 7 S L21 AND L22, L23

FILE 'REGISTRY' ENTERED AT 11:07:24 ON 13 OCT 2002

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 11:07:32 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 13 Oct 2002 VOL 137 ISS 16 FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d 124 bib abs hitrn fhitstr retable tot

ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2002 ACS L24

1998:546795 HCAPLUS ΑN

DN 129:254774

TI In vitro inhibition of human colonic motility with SR 59119A and SR 59104A: evidence of a .beta.3-adrenoceptor-mediated effect Bardou, Marc; Dousset, Bertrand; Deneux-Tharaux, Catherine; Smadja,

ΑU

```
kim - 10 / 044531
    Claude; Naline, Emmanuel; Chaput, Jean-Claude; Naveau, Sylvie; Manara,
    Luciano; Croci, Tiziano; Advenier, Charles
    Departement de Pharmnacologie, Faculte de Medecine Paris-Ouest, Paris,
CS
    F-75270, Fr.
    European Journal of Pharmacology (1998), 353(2/3), 281-287
SO
    CODEN: EJPHAZ; ISSN: 0014-2999
PB
    Elsevier Science B.V.
DΤ
    Journal
LA
    English
AΒ
    The new .beta.3-adrenoceptor is present in the gastrointestinal tract of
    various species. This study aimed to show that this receptor modulates
    human colonic motility in vitro. The authors used circular muscle strips
     from the human colon suspended in single organ baths contg. Krebs soln.
    and subjected to an initial 1.5-2 g tension. The authors measured the
    effects of different .beta.3-adrenoceptor agonists, including SR 59104A
     (N-[(6-hydroxy-1,2,3,4-tetrahydronaphthalen-(2R)-2-yl)methyl]-(2R)-2-yl)
    hydroxy-2-(3-chlorophenyl)ethanamine hydrochloride), SR 59119A
     (N-[(7-methoxy-1,2,3,4-tetrahydronaphthalen-(2R)-2-yl)methyl]-(2R)-2-yl)
    hydroxy-2-(3-chlorophenyl)ethanamine hydrochloride), BRL 37344 [(R,R +
    S,S) [4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]-
    amino]propyl]phenoxy]acetic acid], and of isoprenaline and salbutamol in
    the absence or in the presence of propranolol alone or in combination with
    the .beta.3-adrenoceptor antagonist SR 59230A (3-(2-\text{ethylphenoxy})-1-[(1S)-
    1,2,3,4-tetrahydro-naphthalen-1-ylamino]-(2S)-2-propanol oxalate) on
    amplitude of spontaneous contractions. To evaluate a possible
     .beta.2-adrenoceptor-mediated effect, the authors studied the action of
```

by the atypical 3-adrenoceptor, the .beta-3-adrenoceptor. 136758-90-2, SR 59104A 136758-99-1, SR 59119A) ΙT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (in vitro inhibition of human colonic motility with $\bar{S}R$ 59119A and SR59104A and evidence of a .beta.3-adrenoceptor-mediated effect) 136758-90-2, SR 59104A ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (in vitro inhibition of human colonic motility with SR 59119A and SR 59104A and evidence of a .beta.3-adrenoceptor-mediated effect) 136758-90-2 HCAPLUS

these compds. on human isolated bronchi. On the human isolated colon, SR

stimulation, since propranolol did not antagonize the action of SR 59119A

significantly displaced the concn.-response curve of these agonists to the This study provides pharmacol. evidence of modulation of human

colonic motility, and esp. of the amplitude of spontaneous contractions,

59119A, SR 59104A and isoprenaline reduced the initial amplitude of spontaneous contractions by 60%. The curves obtained in the presence of

and SR 59104A, whereas the combination of propranolol and SR 59230A

antagonists suggested an action mediated by .beta.3-adrenoceptor

2-Naphthalenol, 6-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-CN 5,6,7,8-tetrahydro-, hydrochloride, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

right.

RN

HCl

```
ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2002 ACS
L24
AN
     1998:509094 HCAPLUS
DN
     129:144879
     Use of agonists of beta-3 adrenergic receptors for preparing wound-healing
TI
     medicines
IN
     Bernat, Andre; Herbert, Jean-Marc; Arnone, Michele
     Sanofi, Fr.
PA
SO
     PCT Int. Appl., 25 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                        KIND
                              DATE
                                               APPLICATION NO.
                                                                 DATE
                              19980723
                                               WO 1998-FR105
PΙ
     WO 9831357
                        A1
                                                                 19980121 <--
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
              KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
                                                                               MX,
              NO, NZ,
                      PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
                      US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
              UA, UG,
         RW: GH,
                 GM,
              FR.
                 GB,
                      ML, MR, NE, SN, TD, TG
              GA.
                 GN,
     FR 2758460
                              19980724
                                               FR 1997-584
                                                                 19970121 <--
                        Α1
     FR 2758460
                         В1
                              19991231
     ZA 9800484
                              19980730
                         Α
                                               ZA 1998-484
                                                                 19980121 <--
     AU 9859941
                              19980807
                        A1
                                               AU 1998-59941
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                              19991229
                                               EP 1998-903099
                                                                 19980121 <--
     EP 966276
                        A1
                      CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             AT, BE,
              IE, FI
    BR 9807288
                         Α
                              20000321
                                               BR 1998-7288
                                                                 19980121 <--
     JP 2001508790
                         T2
                              20010703
                                               JP 1998-533861
                                                                  19980121 <--
     US 6235793
                         B1
                              20010522
                                                                  19990715 <--
                                               US 1999-341656
     NO 9903548
                         Α
                                                                  19990720 <--
                              19990720
                                               NO 1999-3548
PRAI FR 1997-584
                              19970121
                         Α
                                         <--
     WO 1998-FR105
                         W
                              19980121
                                         <--
OS
     MARPAT 129:144879
     Agonists of beta-3 adrenergic receptors (Markush structure given) are used
AΒ
     for prepg. wound-healing medicines (no data).
ΙT
     210757-90-7 210757-91-8
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
         (use of agonists of beta-3 adrenergic receptors for prepg.
        wound-healing medicines)
ΙT
     210757-90-7
     RL: BAC (Biological activity or effector, except adverse); BSU
```

(Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
 (use of agonists of beta-3 adrenergic receptors for prepg.
 wound-healing medicines)
RN 210757-90-7 HCAPLUS
CN 2-Naphthalenol, 6-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]5,6,7,8-tetrahydro-, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L24 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:306016 HCAPLUS

DN 129:76216

TI Influence of .beta.-adrenoceptor agonists on the pulmonary circulation. Effects of a .beta.3-adrenoceptor antagonist, SR 59230A

AU Dumas, Monique; Dumas, Jean-Paul; Bardou, Marc; Rochette, Luc; Advenier, Charles; Giudicelli, Jean-Francois

CS Laboratoire de Physiopathologie et de Pharmacologie Cardiovasculaires Experimentales, Faculte de Medecine, Dijon, 21000, Fr.

SO European Journal of Pharmacology (1998), 348(2/3), 223-228 CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier Science B.V.

DT Journal

LA English

AΒ The aims of this study were (a) to compare in the rat isolated perfused lung prepn., the effects of isoprenaline and of three .beta.3adrenoceptors agonists, SR 59104A, [N-[[6-hydroxy-1,2,3,4tetrahydronaphthalen-(2R)-2yl]methyl]-(2R)-2-hydroxy-2-(3chlorophenyl)ethanamine-HCl], SR 59119A [N-[[7-methoxy-1,2,3,4tetrahydronaphtalen-(2R)-2yl]methyl]-(2R)-2-hydroxy-2-(3chlorophenyl)ethanamine-HCl] and SR 58611A [ethyl [(7S)-7-[(2R)-2-(3-R)]chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphthalen-2yloxy]acetate-HCl] on hypoxia-induced pulmonary vasoconstriction, and (b) to investigate the potential existence of atypical .beta.-adrenoceptors in these effects. Propranolol (0.1 .mu.M) was used to antagonize .beta.1and .beta.2-adrenoceptors whereas SR 59230A, 3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronapht-1-ylamino]-(2S)-2-propanol oxalate) (0.3 .mu.M) was used to block .beta.3-adrenoceptors. Isoprenaline and the three .beta.3-adrenoceptors agonists caused concn.-dependent relaxations during the pulmonary pressure response. Propranolol and SR 59230A inhibited the relaxant effects of isoprenaline. SR 59230A but not propranolol inhibited those of SR 59104A. Finally, propranolol and SR 59230A failed to oppose SR 59119A- and SR 58611A-induced relaxant effects. In concns. .gtoreq.1 .mu.M, SR 59230A caused per se a relaxation of the hypoxic vasoconstricted These results suggest the existence of atypical .beta.-adrenoceptors in the rat pulmonary vessels.

IT 136758-90-2, SR 59104A 136758-99-1, SR 59119A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(.beta.-adrenoceptor agonists and .beta.3-adrenoceptor antagonist SR 59230A effect on pulmonary circulation)

IT 136758-90-2, SR 59104A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (.beta.-adrenoceptor agonists and .beta.3-adrenoceptor antagonist SR 59230A effect on pulmonary circulation)
136758-90-2 HCAPLUS

CN 2-Naphthalenol, 6-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

HC1

L24 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:93789 HCAPLUS

DN 126:99317

TI Use of beta3-adrenergic agonists for inducing the release of glucagon-like-peptide

IN Bouloux, Cyril Jacques; Manara, Luciano; Bloom, Stephen Robert

PA Sanofi, Fr.

SO Fr. Demande, 9 pp. CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

T. WIA .	CNII					
	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	FR 2732894	A1	19961018		FR 1995-4448	19950413 <
	FR 2732894	В1	19970704			
	FR 2734482	A1	19961129		FR 1995-12694	19951027 <
	FR 2734482	В1	19970814			
	BE 1009698	A3	19970701		BE 1996-294	19960409 <
	IT 1298492	B1	20000110		IT 1996-TO284	19960412 <
PRAI	FR 1995-4448	A	19950413	<		
	FR 1995-12694	A	19951027	<		
~ ~					C	

AB Beta3-adrenergic agonists are useful for inducing the release of glucagon-like-peptide. These agonists are administered at 0.01-30 mg/kg body wt. in different dosage forms (no data).

IT 136758-90-2 136758-99-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(beta3-adrenergic agonists for inducing release of glucagon-like-peptide)

IT 136758-90-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(beta3-adrenergic agonists for inducing release of glucagon-like-peptide)

RN 136758-90-2 HCAPLUS

CN 2-Naphthalenol, 6-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

```
L24
     ANSWER 5 OF 7 HCAPLUS
                             COPYRIGHT 2002 ACS
AN
     1992:530933 HCAPLUS
DN
     117:130933
     Preparation of [[[(oxotetrahydronaphthyl)methyl]amino]ethyl]benzenes as
ΤI
     antihypertensives
     McDermed, John Dale; Hurley, Kevin Patrick; Tadepalli, Anjaneyulu
IN
     Seetharam; Chang, Vincent Huech Tien
     Wellcome Foundation Ltd., UK
PA
SO
     PCT Int. Appl., 61 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                                            APPLICATION NO.
                             DATE
                                                              DATE
     WO 9205143
                       A1
                             19920402
                                            WO 1991-GB1602
                                                              19910919 <--
         W: JP, US
```

Ι

$$R^3$$
 R^4
 $CH_2NHCH_2CH (OH)$
 R^2

AB Title compds. [I; R1 = H, OH, alkyl, halo, carbamoyl, aminosulfonyl (amino), etc.; R2 = H, OH, halo, alkoxycarbonyl, aminosulfonyl, alkylsulfonylamino; R3 = H, OH, alkoxy; R4 = H, alkoxy, halo, NO2] were prepd. Thus, 2'-chloro-5'-[(1-hydroxy-2-amino)ethyl]methanesulfonanilide hydrochloride (prepn. from 4-chloro-3-nitroacetophenone given) and N-(1,2,3,4-tetrahydro-1-oxo-2-naphthyl)methyl-N,N,N-trimethylammonium iodide (prepn. given) were stirred in MeCN contg. Et3N to give title compd. II as a mixt. of 2 pairs of diastereomers. II at 10 mg/kg orally in rats gave a 46/53% redn. in systolic/diastolic blood pressure.

IT 142951-68-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as antihypertensive)

IT 142951-68-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as antihypertensive)

RN 142951-68-6 HCAPLUS

CN Methanesulfonamide, N-[2-chloro-4-[1-hydroxy-2-[[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl]amino]ethyl]phenyl]-, mono(methanesulfonate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 142951-67-5 CMF C20 H25 C1 N2 O3 S

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \text{CH}_2 - \text{NH} - \text{CH}_2 - \text{CH} \\ \text{OH} & \text{OH} \\ \text{NH} - \text{S} - \text{Me} \\ \text{C1} & \text{O} \end{array}$$

CM 2

CRN 75-75-2 CMF C H4 O3 S

L24 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2002 ACS

AN 1991:607684 HCAPLUS

DN 115:207684

TI Phenylethanolaminomethyltetralins, their preparation, and pharmaceuticals containing them for treatment of intestinal disorders and glaucoma

```
IN
     Cecchi, Roberto; Guzzi, Umberto
PA
     SANOFI, Fr.; Midy S.p.A.
SO
     Eur. Pat. Appl., 45 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                                               DATE
PΙ
     EP 436435
                        Α1
                             19910710
                                             EP 1990-403762
                                                               19901226 <--
     EP 436435
                        В1
                             19940323
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
     FR 2656607
                       A1
                             19910705
                                             FR 1989-17465
                                                               19891229 <--
     FR 2656607
                        В1
                             19940311
     AT 103269
                        Ε
                             19940415
                                             AT 1990-403762
                                                               19901226 <--
     ES 2054304
                        Т3
                             19940801
                                             ES 1990-403762
                                                               19901226 <--
     CA 2033243
                        AΑ
                             19910630
                                             CA 1990-2033243
                                                               19901227 <--
     CA 2033243
                        С
                             19980707
     JP 04210663
                        Α2
                             19920731
                                             JP 1990-418873
                                                               19901227 <--
     JP 2521191
                        В2
                             19960731
     US 5130339
                        Α
                             19920714
                                             US 1990-635950
                                                               19901228 <--
PRAI FR 1989-17465
                             19891229
                                        <--
     EP 1990-403342
                             19901126
                                       <--
     EP 1990-403762
                             19901226
                                       <--
OS
     MARPAT 115:207684
GI
```

Title compds. I [E = H, alkyl, alkoxy, Ph, NO2, halo, CF3; L = H, alkyl, AΒ Ph, alkoxy, NO2, halo; or EL = CH:CHCH:CH, (CH2)4; G = H, Cl, OH, OG', G' = alkyl (optionally substituted by OH, alkoxy, alkoxycarbonyl, CO2H, or cycloalkyl), cycloalkyl, alkanoyl] and salts were prepd. as selective modulators of intestinal motility, and for treatment of ocular hypertension and glaucoma (no data). For example, amidation of 3-chloromandelic acid with 2-(aminomethyl)-7-methoxy-1,2,3,4tetrahydronaphthalene and redn. of the amide with BH3.Me2S in THF, followed by acidification, gave I.HCl (E = 3-Cl, L = H, G = 7-OMe) (II). The EC50 of II for inhibition of spontaneous contraction of isolated rat colon and uterus, resp., were 43 and 2453 nM, vs. 194 and 350 nM for the known analog bearing a 7-OEt group and lacking the naphthylmethyl CH2 unit. Five formulations, 33 syntheses of I, and 22 precursor syntheses are described.

Ι

ΙT 136759-09-6P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of drugs)

ΙT 136758-71-9P 136758-72-0P 136758-73-1P 136758-74-2P 136758-75-3P 136758-76-4P 136758-77-5P 136758-78-6P 136758-79-7P 136758-80-0P 136758-81-1P 136758-82-2P 136758-83-3P 136758-84-4P 136758-85-5P 136758-86-6P 136758-87-7P 136758-88-8P 136758-89-9P 136758-90-2P 136758-91-3P 136758-92-4P 136758-94-6P 136758-96-8P 136758-97-9P 136758-98-0P 136758-99-1P 136759-00-7P 136759-01-8P 136759-02-9P 136759-03-0P 136759-04-1P 136759-05-2P 136759-06-3P 136759-07-4P 136759-08-5P 136759-09-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, for treatment of intestinal disorders and glaucoma)

ΙT 136759-09-6P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of drugs)

136759-09-6 HCAPLUS RN

CN Acetic acid, [[7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

L24 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2002 ACS

AN 1990:526611 HCAPLUS

DN 113:126611

ΤI Preparation of antihypertensive sulfonanilides

McDermed, John Dale; Tadepalli, Anjaneyulu Seetharm; Chang, Vincent Huech ΙN Tien; Hurley, Kevin Patrick; Freeman, Harold Stanley

PΑ Wellcome Foundation Ltd., UK

SO Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DTPatent

LA English

FAN.	FAN.CNT 1								
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
PI	EP 338793 EP 338793 EP 338793	A2 A3 B1	19891025 19910102 19931027	EP 1989-303862	19890419 <				
				, GR, IT, LI, LU, NL	, SE				
	DK 8901890	A	19891021	DK 1989-1890	19890419 <				
	FI 8901866	A	19891021	FI 1989-1866	19890419 <				
	FI 91398	В	19940315						
	FI 91398	С	19940627						
	NO 8901609	Α	19891023	NO 1989-1609	19890419 <				
	NO 173010	В	19930705						
	NO 173010	C	19931013						
	AU 8933221	A1	19891026	AU 1989-33221	19890419 <				
	AU 626850	B2	19920813						
	JP 02006461	A2	19900110	JP 1989-97714	19890419 <				
	HU 51600	A2	19900528	HU 1989-1909	19890419 <				
	HU 204028	В	19911128		•				
	ZA 8902880	Α	19901228	ZA 1989-2880	19890419 <				
	AT 96429	E	19931115	AT 1989-303862	19890419 <				
	CA 1332615	A1	19941018	CA 1989-597117	19890419 <				
	ES 2059737	Т3	19941116	ES 1989-303862	19890419 <				
	IL 90043	A1	19950124	IL 1989-90043	19890419 <				
	US 5102914	A	19920407	US 1989-455909	19891218 <				

The sulfonanilides I (R = H, OH; R1 = H, alkoxy; Z = CO, CHOH, CH2) and I AB salts are prepd. as antihypertensives. 2-(4-Methanesulfonamidophenyl)ethy 1 methane sulfonate was added, at 100.degree., to a soln. of 2-aminomethyl-1,2,3,4-tetrahydronaphthalene and Et3N in DMF, to give I (R = R1 = H, Z = CH2) (II). Oral administration of 10 mg II/kg decreased the blood pressure of spontaneously hypertensive rats. Formulation examples are given.

Ι

ΙT 129280-12-2P

> RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as antihypertensive)

IT 129280-12-2P

> RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as antihypertensive)

RN 129280-12-2 HCAPLUS

CN Methanesulfonamide, N-[4-[1-hydroxy-2-[((1,2,3,4-tetrahydro-2naphthalenyl)methyl]amino]ethyl]phenyl]- (9CI) (CA INDEX NAME)

=> fil reg FILE 'REGISTRY' ENTERED AT 11:07:43 ON 13 OCT 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file

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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d ide can 1 4 10 15 20 25 30 35 40 41

L25 ANSWER 1 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN 210757-91-8 REGISTRY

CN Benzenemethanol, 3-chloro-.alpha.-[[[[(2R)-1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl]methyl]amino]methyl]-, (.alpha.R)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H24 C1 N O2

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:274338

REFERENCE 2: 129:144879

L25 ANSWER 4 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN **136759-09-6** REGISTRY

CN Acetic acid, [[7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C23 H28 C1 N O4

CI COM

SR CA

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 10 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN **136759-03-0** REGISTRY

CN Acetic acid, $[[7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, <math>[R-(R^*,R^*)]-(9CI)$ (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H28 C1 N O4 . C1 H

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 15 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN 136758-98-0 REGISTRY

CN 2-Naphthalenol, 5,6,7,8-tetrahydro-6-[[[2-hydroxy-2-(3-methoxyphenyl)ethyl]amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)

MF C20 H25 N O3 . C1 H

SR CA

$$CH_2-NH-CH_2-CH$$

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 20 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN **136758-91-3** REGISTRY

CN 2-Naphthalenol, 6-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C19 H22 C1 N O2 . C1 H

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 25 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN **136758-86-6** REGISTRY

CN Benzenemethanol, .alpha.-[[[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)

MF C20 H25 N O2 . C1 H

SR CA

HCl

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 30 OF 41 REGISTRY COPYRIGHT 2002 ACS

136758-81-1 REGISTRY RN

CN 2-Naphthalenol, 7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

MF C19 H22 C1 N O2 . C2 H2 O4

SR CA

LC STN Files: CA, CAPLUS

> CM 1

CRN 136758-80-0 CMF C19 H22 C1 N O2

$$\begin{array}{c|c} \text{HO} & \text{OH} \\ \hline \\ \text{CH}_2\text{--} \text{NH--} \text{CH}_2\text{--} \text{CH} \\ \end{array}$$

CM

144-62-7 CRN C2 H2 O4 CMF

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

ANSWER 35 OF 41 REGISTRY COPYRIGHT 2002 ACS L25

136758-76-4 REGISTRY RN

2-Naphthalenol, 6-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-CN 5,6,7,8-tetrahydro-, hydrochloride (9CI) (CA INDEX NAME) C19 H22 Cl N O2 . Cl H

MF

SR CA

CA, CAPLUS LCSTN Files:

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 40 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN 136758-71-9 REGISTRY

CN 2-Naphthalenol, 7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C19 H22 Cl N O2 . Cl H

SR CA

LC STN Files: CA, CAPLUS

CRN (136759-07-4)

Absolute stereochemistry.

● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 41 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN 129280-12-2 REGISTRY

CN Methanesulfonamide, N-[4-[1-hydroxy-2-[[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl]amino]ethyl]phenyl]- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C20 H26 N2 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

```
\begin{array}{c|c} OH \\ O \\ O \\ NH-S-Me \\ O \\ O \\ \end{array}
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1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:126611

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(FILE 'HOME' ENTERED AT 10:59:10 ON 13 OCT 2002) SET COST OFF

FILE 'REGISTRY' ENTERED AT 10:59:42 ON 13 OCT 2002 ACT JKIM44531D/A

MOI UNITITIO

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L1
                 STR
L2
             375) SEA FILE=REGISTRY SSS FUL L1
L3
                 STR
             237) SEA FILE=REGISTRY SUB=L2 SSS FUL L3
L4
              76 SEA FILE=REGISTRY SUB=L4 CSS FUL L3
L5
                 STR L1
L6
. L7
              12 S L6
L8
             240 S L6 FUL
                 SAV L8 JKIM44531H/A
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FILE 'HCAPLUS' ENTERED AT 11:01:38 ON 13 OCT 2002

L9 16 S L8 L10 12 S L8 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128) L11 1 S L8 (L) (THU OR BAC)/RL

L12 11 S L10 AND (63 OR 1)/SC,SX

L13 15 S L11, L12

L14 11 S L10 AND L13 L15 1 S L10 NOT L14

FILE 'REGISTRY' ENTERED AT 11:03:30 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 11:03:37 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 11:04:08 ON 13 OCT 2002

L16 STR L6

L18 196 S L16 FUL SUB=L8

SAV L18 JKIM44531I/A

L19 44 S L8 NOT L18

FILE 'HCAPLUS' ENTERED AT 11:06:29 ON 13 OCT 2002

L20 11 S L19

L21 7 S L20 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)

L22 10 S L19 (L) (THU OR BAC)/RL

L23 10 S L20 AND (1 OR 63)/SC, SX

L24

7 S L21 AND L22, L23

- FILE 'REGISTRY' ENTERED AT 11:07:24 ON 13 OCT 2002
- FILE 'HCAPLUS' ENTERED AT 11:07:32 ON 13 OCT 2002
- FILE 'REGISTRY' ENTERED AT 11:07:43 ON 13 OCT 2002
- FILE 'HCAPLUS' ENTERED AT 11:08:05 ON 13 OCT 2002 SEL HIT RN L24
- FILE 'REGISTRY' ENTERED AT 11:08:08 ON 13 OCT 2002 L25 41 S E1-E41